A GENRE ANALYSIS AND CORPUS BASED STUDY OF UNIVERSITY LECTURE INTRODUCTIONS

By

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Abstract

This thesis reports a study using a corpus of lecture introductions to explore the generic features of the language used. The main research questions: What are the main communicative functions of this sub-genre? How are the functions realised? Are there any disciplinary differences in university lecture introductions? are explored using two complementary methods of analysis; genre analysis and corpus analysis. Analysis of eighty-nine lecture introductions from the BASE corpus[1] resulted in a Lecture Introduction Framework which posits a two-level classification which first differentiates lecture content orientation (Thompson, 1994) versus listener orientation (Dubois, 1980). This yields three main functions, with additional sub-functions original to this study. The study reveals differences in the frequency of different sub-functions in the four disciplinary domains, reflecting different disciplinary cultures and knowledge. The corpus analysis generated a word frequency list for lecture introductions, giving a rich linguistic description of the lexis used. Further analysis on one of the three main functions; the *Set Up Lecture Framework Function* uses WordSmith Tools 5 to analyse the linguistic realisations of the three sub-functions, which are also the top three most used sub-functions in the corpus. Analysis of pronouns and keywords further supports the finding that there are disciplinary variations in lecture introductions.

[1] BASE The recordings and transcriptions used in this study come from the British Academic Spoken English (BASE) corpus. The corpus was developed at the Universities of Warwick and Reading under the directorship of Hilary Nesi and Paul Thompson. Corpus development was assisted by funding from BALEAP, EURALEX, the British Academy and the Arts and Humanities Research Council.

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Contents

List of Figures and Tables

A) List of Figures

B) List of Tables

List of Abbreviations

AH	Arts and Humanities
ALWL	Academic Lecture Word List
BASE	The British Academic Spoken English
BNC	British National Corpus
CANCODE	Cambridge and Nottingham Corpus of Discourse in English
CARS	Create a research space
ESL	English as a Second Language
ESP	English for Specific Purposes
ICE-GB	The International Corpus if English – Great Britain
IRF	Initiation- Response-Feedback
LCIE	Limerick Corpus of Irish English
LS	Life Sciences
L1	First language
L2	Second language
LGSWE	Longman Grammar of Spoken and Written English
MICASE	Michigan Corpus of Academic Spoken English
NNS	Non-native speaker
NS	Native speaker
PS	Physical Science
SS	Social Science
T2K SWAL	TOEFL 2000 Spoken and Written Academic Language

CHAPTER 1: INTRODUCTION

1.1 Rationale

1.1.1 Background

This thesis examines a spoken genre that students in tertiary education around the world participate in. Lectures are a primary means of obtaining knowledge for university students and the main methodology of teaching for lecturers at universities, and have been from as early as medieval times. The etymology of the word lecture is derived from the Medieval Latin "legere", meaning reading a text to be read. In the 16th century its meaning included a moral lesson and later on in the 18th century it became a lengthy reprimand or to reprimand at length (McDonald, 2010). The meaning we are examining in this thesis is "a formal speech on a particular subject" which was also established in the 16th century, and by the 17th century a lecturer was generally known as someone who gives lectures at a university (Ibid.). In the medieval days, a lecturer would read aloud original scripts which would be copied as notes by students. Throughout the centuries, subsequent lectures would be based on original lecture notes and passed down to the next generation. In the present twenty first century, this practice of lecturers delivering prepared lecture notes has evolved, where lecturers rarely just read aloud manuscripts. Good lectures are seen to include interactive elements to attract the students' attention and increase their motivation to listen to the lectures, such as multimedia presentation software like PowerPoint and video clips. Lectures can also include other activities like live demonstrations, writing on the whiteboard, referring to handouts, discussions and student presentations.

While lectures have evolved through time, the main communicative function of the lecture as a genre has remained the same: an oral presentation used to present information or to teach people about a subject. It is however, a rather complex genre to define from a genre analysis point of view, as it does not present itself with a clear linear flow of communicative functions that remain the same in all lectures like some well-known written genres; for example, the journal article or a job application letter. Being of multiple channels - auditory and visual elements, the difficulty with its definition also includes issues involving processing language in real time on behalf of the listener, in which the intended communicative function might have been missed or misunderstood, depending on the culture or background of the listener.

For the young novice university student, lectures may be a completely alien genre to them. My own personal educational experience is testament to the fact that lectures are a method of teaching that is unique to academic university discourse and for some, only encountered once they have entered this discourse community. Prior to studying at university, the closest I had experienced to a lecture was the head teacher's speech at the weekly high school assembly, when as a young teenager I had no motivation to listen, as the speech often involved a reprimand and seemed much too long. Yet, this was not exactly like a university lecture, even though it took place in an educational establishment, as note-taking was not required and the subject matter was usually a reprimand on the behaviour and conduct of teenagers at school. Later on while doing my A-Levels at college, the classes were small and most were taught in a seminar style and incorporated task based activities which promoted discussion and student participation. Classes at university, on the other hand, proved to be very different. Classes were a challenging ordeal of sitting in the vast and intimidating lecture hall where refuge was sought by hiding amongst the many students, only to be confused by

the speed of delivery and the length of the lecture, alongside the personal styles of different lecturers.

In spite of this complexity, when one mentions the lecture genre, those within the academic discourse community instinctively know what it is. We know who delivers the lecture, and to some degree what to expect when listening to one, even though each lecture is different and everything that is expected is not necessarily executed at each lecture, and lastly what is expected of the listeners of a lecture. The lecture's alleged shortcomings as a teaching method, i.e. lacking student engagement and the inability to stimulate higher-order thinking (Gibbs and Jenkins, 1992, Laurillard, 2001, Bligh, 1998) has stood the test of time and to date remains the most used method of teaching in tertiary education in the UK around the world.

One possible reason for the longevity of the lecture as a teaching method besides the obvious economic reasons of enabling hundreds of students be taught at the same time using the resource of one lecturer, is the historical fact that human beings are creatures of habit and dislike changes in the ways universities have operated for centuries (Pritchard, 2010). Pritchard (Ibid.) argues the place for lectures within the discipline of Mathematics which sees three overlapping roles of the lecture: *to communicate* information, definitions, theorems, methods and overviews; *to model* problem-solving, heuristic and formal reasoning, and 'expert' thought processes; and *to motivate* students to approach the subject with an appropriate attitude and enthusiasm. He further highlights that lectures allow communication through multiple channels: writing, visual aids and speech, which is useful as there is much evidence that the human working memory is limited, and students can be overloaded if information is delivered too fast. With evidence that auditory and visual stimuli are processed as distinct streams with separate memory allocations, students can remember lectures better in comparison to learning through a single channel like reading a course book or listening to a

podcast. This argument, though intended for the Mathematics disciplinary domain, can be applicable for all disciplines.

The way lecturing is used and the underlying approach adopted that determines its effectiveness. Ramsden (1992) claims that lectures are useful to introduce a new topic or to give an overview of the relation between topics. Also, by linking personal insights from research, a lecturer can inspire students and create the excitements of scholarship to the learning process. For all these reasons, it does not appear that universities have plans to get rid of this teaching method.

It has been argued that comprehending lectures is a notoriously difficult task for all students, both native and non-native alike. Olsen and Huckin's (1990) study claims that understanding all words of a lecture does not necessarily mean that students understand main points or logical arguments of a lecture as with their study of immediate-recall summary of well-structured engineering lecture with fourteen non-native graduate and undergraduate students. Flowerdew and Miller's (1992, p.17) ethnographic study of 30 1st year Hong Kong Chinese university students concludes that "the key finding is that listening to lecture monologue is an extremely difficult task, for which language students may well be inadequately prepared." Alongside no previous experience of the English lecture monologue, and listening proficiency below those of American university level, the students self-rated their proficiency level as good. Students noted three main problems which are speed of delivery, new terminology and difficulties in concentrating. The speed problem echoes Thompson (1994,p.172) claims that "each listener of a lecture faces the daunting task of processing a lengthy stretch of monologue in real time whereby in order to be successful, the listener must actively construct a coherent interpretation of what is probably a complex and cognitively demanding spoken message". Furthermore, Khuwaileh's (1999) study on the large

number of Jordanian students' lack of comprehension of English lectures saw the positive impact of the use of chunks, phrases and body language for Arabic speaking students. Therefore it would be useful to understand this genre to help future generations of students with settling themselves into the university world.

This thesis investigates the communicative functions and linguistic realisations of the lecture introduction sub-genre. The lecture introduction is of particular interest, as there is a common belief that when listening to a lecture students' attention span does not exceed the first twenty minutes of a lecture (Bligh, 1998). Though current research disputes this claim, the first part of a lecture, which is when the lecturer introduces the students to the topic, should be engaging and crucial for students to understand. Bounce et al.(2010) researched student attention to lectures by using clicker feedback (a device whereby students click to indicate feedback) and concluded that students' attention alternates between being engaged and not engaged in ever-shortening cycles throughout a lecture segment. From my own point of view, understanding how a lecturer starts a lecture would only bring benefits to both parties in a lecture hall.

Lecture introductions can be viewed as especially important to be understood because they play a key role in telling the listeners what the lecture is going to be about. As lectures are not as homogenous as other academic genres, whereby they do not follow a preferred sequence of functional elements (Thompson, 1994), lecturers can mitigate the potential problem of listeners by using different rhetorical functions to signal what they are going to talk about and the direction or structure of the lecture. According to Laurillard (2001), university teachers must take the main responsibility for what and how their students learn. When students can choose to attend and concentrate hard on the lectures presented, it is the

teacher's responsibility to create the conditions in which understanding is possible. The first step towards this is to understand the lecture genre.

Besides Thompson's (1994) genre-based study on 18 lecture introductions, there has only been another genre-based study by Lee (2009) about lecture introductions, which looked at the impact of class size on the generic moves and lexico-grammatical features of academic lecture introductions from the MICASE (Michigan Corpus of Academic Spoken English) corpus. Gaps in the above literature point to a need for further research into lecture introductions about British academic lectures on a larger sample of lectures to make a convincing substantial claim, and also in varying disciplinary areas, as genres have been seen to vary across disciplines (Samraj, 2005, Hyland and Bondi, 2006, Samraj, 2008). My research hopes to fill the gaps in the existing literature.

Through a description and analysis of a corpus of lecture video recordings and transcripts, a generic framework will be proposed. This generic framework builds upon Thompson's (1994) genre analysis of lecture introductions. From this, the linguistic choices of the communicative functions are explored. The most frequent and key lexico-grammatical words in the corpus and their relation to different discourse functions contribute to the description of this genre. The aim of the thesis is therefore to show how lecturers create and participate in and utilise the communicative functions of lecture introductions through their language choices.

This study also includes various features of academic discourse which have been chosen in comparison to other academic discourse and other small genre studies. The lexico-grammatical features of the lecture introduction shall also be examined systematically which should be useful for establishing the generic fingerprint of lecture introductions. For instance,

the notion of 'Lexical Bundles' researched extensively by Biber et al. (2004) in academic discourse will be explored in the corpus in relation to the communicative functions used. In accordance with Sinclair's (1991) 'Idiom Principle', whereby each of us has at our disposal sets of pre-constructed phrases to use, the lecture genre, especially as it uses naturally occurring speech through lectures will presumably contain examples of these. This adds to the description of the lecture introduction sub-genre where these word clusters occur repeatedly, especially in relation to specific communicative functions.

As this thesis examines what is essentially teacher talk, the 'Initiation-Response-Feedback'(IRF) structure examined by Sinclair and Coulthard's (1975) is also explored. Although large lectures are usually monologic in nature, in their study, lecturers are found to employ this structure in the introduction to check students' comprehension or to elicit information to inform the lecturer about the direction of the lecture.

In spoken language, as with other face-to-face interaction Brown and Levinson's (1987) notion of 'politeness' is perceived to be used by lecturers as an act of positive politeness. In particular, this can be seen by the different use of pronouns in referring to the audience or themselves which attempts to establish a rapport and lessen the power distance between both parties.

1.1.2 The BASE Corpus

Recent advancements in the way language is stored electronically to be used for research have provided linguistics with a whole new dimension of analysing language. Known as corpus linguistics, this approach is well-known for utilising multi-million word corpora. Corpora has been defined as a 'principled collection of texts available for qualitative and quantitative

analysis' (Biber, Conrad and Reopen (1998) in (O'Keeffe et al., 2007)). Hunston (2002) rightly claims that a corpus can do nothing but store language and it is the corpus access software that can rearrange that store, so various observations can be made, like showing frequency, phraseology, and collocation.

Due to the nature of collecting and processing spoken language in compiling corpora, their size is not normally as big as their written counterpart. Examples of well-known spoken corpora are the ten-million-word spoken component of the British National Corpus (BNC), the five-million-word corpus of the Cambridge and Nottingham Corpus of Discourse in English (CANCODE), the one-million-word Limerick Corpus of Irish English (LCIE), the 1.8 million words of The Michigan Corpus of Academic Spoken English (MICASE), and the 907,657 word Hong Kong Corpus of Spoken English. It has been argued that the size of the corpus one needs depends on what it is to be used for. Essentially, the corpus must be so big that there are enough occurrences of the language elements we want to study(O'Keeffe et al., 2007). Even though the father of Corpus Linguistics, John Sinclair (1991, p.18) claims that a corpus "should be as large as possible and should keep on going", smaller specialised corpora have proven to be able to reflect the linguistic patterns and context of use of the target genre (Flowerdew, 2004a, O'Keefe et al., 2007, Koester, 2010, Henry and Roseberry, 2001b, Ghadessy et al., 2001).

BASE, the British Academic Spoken English Corpus, from which the data explored in this thesis is extracted from, is a specialised corpus of spoken academic English comprising of lectures and seminars from British universities. According to the BASE corpus website, the BASE corpus was developed by Hilary Nesi, with Paul Thompson. Natalie Snodgrass and Sarah Creer were employed as research assistants and Tim Kelly was video director for the project. Lou Burnard (Oxford University) and Adam Kilgarriff (Lexicography Master Class

Ltd) acted as consultants. The lectures and seminars in the corpus have been transcribed and tagged using a system devised in accordance with the Text Encoding Initiative Guidelines. Furthermore, the corpus has been deposited in the Oxford Text Archive and is catalogued by the Arts and Humanities Data Service. According to the corpus developers, the corpus hopes to enable the facilitation of the investigation of:

1) The frequency and range of academic lexis
2) The meaning and use of individual words and multi-word units
3) The structure of academic lectures
4) The pace, density and delivery styles of academic lectures
5) The discourse function of intonation
6) Patterns of interaction, including turn-taking and topic selection
7) The interplay of visual and aural stimuli
8) The representation of ideas and the expression of attitudes

The language focus of this study relates to item (1), (2) and (3) in particular, the lecture introduction and as it can be considered as a sub-genre of the lecture genre (the notion of sub-genre discussed further in Chapter 3). The Lecture Introduction corpus for this study is thus comparatively smaller than the BASE corpus. In addition to this, only lectures with video recordings are included, as lectures involve multi-modal elements in terms of delivery and interpretation to establish the genre.

Obtaining and adapting data from a readily available corpus, one which was produced so professionally carried out has enabled a more cost and time effective use of the limited time allowed for this PhD study. Developing a corpus, especially a spoken one would have proved to be a laborious and time-consuming on a large scale, including problems with the

actual recording, especially from previous experience when there were instances that the sound quality was inaudible and dilemmas of transcription. Despite the fact that the lecture data was readily available, determining the lecture introductions from the lecture transcripts with the corresponding video recordings was by no means straightforward and took a lengthy period of time to determine.

1.2 General research questions

My research questions build on previous studies on academic lecture introductions and seek to explore the following questions:

Question 1: Are the communicative functions found in the BASE lecture introductions similar to those found in Thompson's (1994) study?

Question 2: Do lecture introductions exhibit a common use of communicative function structure, and if they do, what is the prototypical structure?

- Are the elements in each of the communicative functions obligatory or optional?
- Do the obligatory communicative functions appear in a fixed or sequential order?

Question 3: Are there any disciplinary differences found in lecture introduction functions?

Question 4: What are the lexico-grammatical features that share the same communicative functions?

1.3 The broad hypotheses of the study

In exploring these questions and therefore the general hypotheses of the thesis, an example of a short lecture introduction will be discussed. The lecture in Table 1 is presented to a group of

200 undergraduate students of the Life Sciences discipline. The lecture is a Medical lecture entitled 'Developing Interview Skills in the Consultation'. It is an example of a short lecture introduction from the Lecture Introduction Corpus and only contains 198 words.

Table 1 Life Sciences Lecture Introduction LSLCT038

Welcome today we're talking about communication skills it's the core part of what you learn if you want to become a doctor ninety-five per cent of doctors spend most of their days talking to people one way or another ninety-eight per cent of doctors have to be able to consult even if you're a pathologist you have to talk to the relatives of the people you cut up and you have to be able to talk to other doctors as well so this is absolutely crucial now one of the first things about communication skills that we teach you all is that first of all you should introduce yourselves and so we're going to introduce ourselves because in the next few years you're going to become fairly familiar with all these names that are in front of you here and we thought we'd give you this opportunity to find out who we are and we're all going to introduce ourselves to you so that all of you will be taught by us probably most of us before you qualify even if not directly in the next few months so we thought you'd like to know who we are

This thesis is based on the hypothesis that the lecture introduction is a spoken sub-genre of the lecture genre and the lecture introduction is further realised by different communicative functions in achieving the overall main communicative function of introducing the lecture (research questions 1 and 2). Table 1 sees *Lecture Introduction LSLCT038* starting with a greeting which is actually rather rare in the whole Lecture Introduction corpus. Assuming that this is the first lecture of the programme and as the lecture audience is 200 students, a greeting can be an indicator a speech act is beginning and that all

students should start paying attention to what the lecturer says. The lecturer proceeds straight to announce the topic of the lecture which is about communication skills. This follows with the lecturer showing the importance of the topic, and how important communication skills are for doctors. The lecturer then shows importance of the course lecturers introducing themselves as they will be teaching them in the next few years. The lecture introduction ends with the lecturer telling the students that the lecturers of the course will begin the lecture by introducing themselves.

Alongside using different types of communicative functions, what this extract also illustrates is the marked disciplinary difference in the medical lectures of the Life Sciences discipline. Thus, another hypothesis of this thesis is that there are disciplinary differences in academic genres (research question 3). For example as seen in Table 1.1, in the Life Sciences discipline it is very common to have many lecturers delivering one lecture session. When listening to a Life Sciences lecture, the first '*we*' mentioned by the lecturer without the aid of understanding from the video recording might be seen as a referent to the lecturer and students, a common politeness strategy to establish a rapport and solidarity with students as a shared objective. However it becomes clearer from further listening that the '*we*' refers to more than one lecturer when the lecturer talks about the *"in the next few years you're going to become fairly familiar with all these names that are in front of you here and we thought we'd give you this opportunity to find out who we are"*. Although this is an introductory lecture of a course and one might say it is to be expected, evidence from the corpus shows that in other disciplines, this is rare (Hyland and Bondi, 2006).

The extract also shows that the grammar of spoken language is different to that of written language. A glance at the extract sees that the lecturer uses grammar in the progressive tense, referring to the here and now which reflects the face-to-face nature of

spoken grammar. Research studies conducted over the years (McCarthy and Carter, 1995, Carter and McCarthy, 1997, Carter and McCarthy, 2006) have validated the notion that spoken grammar has to offer grammatical choice and forms of interactional and interpersonal language that are not employed in written grammar.

Connected to the grammar of spoken language is the hypothesis that the communicative functions of lecturer in realising different moves can be realised by different lexico-grammatical features (research question 4). For example, "*today we are going to talk about communication skills*" can be seen as a move that announces the topic of the lecture. However, there are many ways that topics can be announced which will be explored further in the corpus analysis section.

Thus this thesis sets out to determine whether these hypotheses will be confirmed by providing answers to the research questions.

1.4 Summary of the chapters

This thesis contains ten chapters which includes the introduction and conclusion. Chapter 2 reviews the relevant literature on the relevant studies in applied linguistics related to this thesis and Chapter 3 reviews the literature on the lecture as a genre and provides a definition of the lecture introduction genre which is of focus in this study. Chapter 4 describes the methodology from which the corpus is compiled, including the considerations and challenges encountered in compiling the corpus. Chapter 5 then discusses the proposed framework developed by conducting a genre analysis of the lecture introduction data. Chapter 6 discusses further quantitative analysis of the disciplinary differences found of the communicative functions. Following that is Chapter 7 which discusses the analysis of the data from a corpus linguistics perspective. The chapter discusses the lecture introduction wordlist; the top 200

words that are the most frequent in the corpus and keyword list and a list of words that make the lecture introduction distinctive compared to the corpus of BASE lectures. Chapter 8 focuses on the corpus analysis results and discussion of the *Set Up Lecture Framework function* and its corresponding three sub-functions: *Announce Topic, Indicate Scope and Outline Scope sub-functions*. The use of pronouns as referents and the lexico-grammatical realisations that make up this function are further discussed. Chapter 9 draws together the results from genre analysis and corpus analysis and discusses whether the research questions have been answered and whether there are disciplinary differences in the lectures, as found in other academic genres. The conclusion in Chapter 10 discusses the main contributions as well as the wider implications of the study.

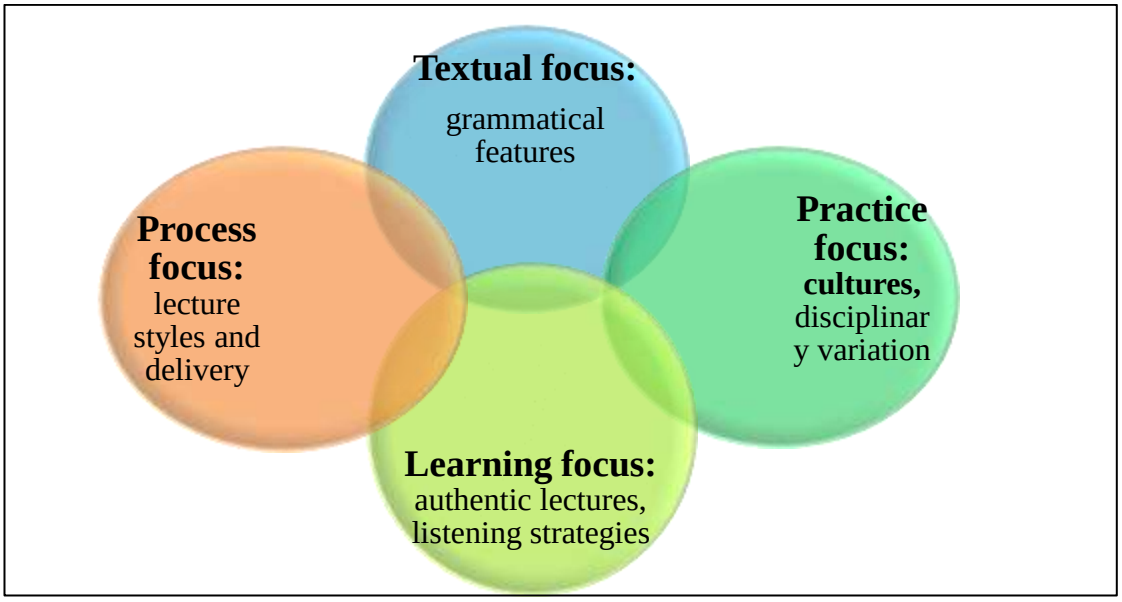
CHAPTER 2: LITERATURE REVIEW ON RELATED LECTURE STUDIES

2.1 Introduction

The past decade has seen an increasing amount of research on academic lectures. This chapter reviews the relevant theoretical approaches in Applied Linguistics in relation to lectures which complements and shapes the direction of this study, as outlined in the introduction section.

The relevant literature on academic lectures to be discussed in this thesis can be seen as divided into several broad and overlapping focus areas, as seen in Figure 1 and will be discussed according to the four different research areas: textual focus (e.g. discourse markers, pronouns, lexical phrases questions), process focus (e.g. lecture styles and delivery), practice focus (e.g. cultures and disciplinary variation) and learning focus (e.g. authentic lecture examples to inform teaching and listening strategies).

Figure 1 Overlapping areas of research on academic lectures



2.2 Studies with textual focus: grammatical features

The following research discussed on 'studies with a textual focus', are seen of those that aim to see how the use of specific language shapes students' understanding of lectures. Lectures are fascinating linguistically because they are spoken texts, yet have features that are normally associated with written texts. Although they are not planned like an academic paper, they are more organised than spontaneous casual conversation (Flowerdew and Tauroza, 1995). The linguistic features discussed are limited to studies on discourse markers, personal pronouns, lexical bundles and questions, as those features will be analysed further in the *Lecture Introduction Framework function* in Chapter 8.

2.2.1 Discourse markers in lectures

One popular linguistic feature, the 'discourse marker' has received some attention in spoken language. Biber et al. (2002) see discourse markers as a type insert used in conversation to signal interactively how the speaker plans to steer the dialogue, usually occurring at the beginning of a turn or utterance. For example *well, right, now, you see* are discourse markers.

With reference to the studies on lectures, Chaudron and Richards (1986) studied the effect of discourse markers on the comprehension of lectures and found that macro-markers (phrases like *'What I'm going to talk about today is…'*, see Table 2) led to better recall of the text material than micro-markers (e.g. *ok, so, right, well, now*). They argue that learners are helped to organize the major ideas in the lecture with guidance from the lecturer's signals of major segments and emphasis. These help them to construct appropriate schematic models of the major portions of the lecture, even if they lack a sophisticated understanding of the content or the rhetorical structure of expository speech. Therefore, macro-statements contain signals or meta-statements about the major propositions within the lecture, or the important

transition points in the lecture. Table 2 contains examples of Macro-Markers from the study. Chaudron and Richards (Ibid.) also boldly claimed that including micro-markers (also known as discourse markers) in lectures did not aid understanding of lectures.

Table 2 Chaudron and Richard's (1986, p.127) Macro-Markers

Chaudron and Richard's (1986) Macro-Markers
• *What I'm going to talk about today is something you probably know something about already—* • *What [had] happened (then/after that] was [that]* • *We'll see that* • *That/this is why* • *To begin with* • *The problem [here was that]* • *This/that was how* • *The next thing was* • *This meant that* • *One of the problems was* • *Here was a big problem* • *What we've come to by now was that* • *Another interesting development was* • *You probably know that* • *The surprising thing is* • *As you may have heard* • *Now where are we* • *This is how it came about* • *You can imagine what happened next* • *In this way* • *It's really very interesting that* • *This is not the end of the story* • *Our story doesn't finish there* • *And that's all we'll talk about today*

Understanding that interactive discourse structuring is used to guide listeners through on-going speech and has been shown to have a positive effect on lecture comprehension,

Crawford Camiciottoli's (2004) study examined audience orientated relevance markers in the business studies lectures of native and non-native speaking guest lecturers and compared it to native speaking lectures in the MICASE (Michigan Corpus of Academic Spoken English) corpus. In their study, the discourse structuring features examined refer to Chaudron and Richards (1986) 'macro-markers', defined as metadiscursive comments on how the lecture itself will be organized, or phrases which signal to listeners what is about to happen. The study found that the high frequency of use among non-native speaking guest lecturers is in line with the expectation that the guest lectures would generally contain more discourse structuring. However, the low frequency among the native speaking guest lecturers was not expected. Looking at individual uses of verbs, it was found that non-native speaking guest lectures used the verbs (I/+ will) explain and (I/we +will) try. The strong presence of *I/we/you will* patterns with the above verbs suggests that the higher frequency of discourse structuring among the non-native guest lecturers is mostly influenced by the language background of the speaker which includes a heightened awareness of comprehension problems, leading to a greater effort to facilitate their audiences.

Another interesting observation about the study is that the future progressive tense was used fourteen times (nine of which with the verb *talk*) by the native speaking lecturers. This was explained due to the more on-going nature of the lectures which were from the MICASE corpus, whereby the lectures contributed to a progressive learning experience developed over a series of class meetings. This contrasts with the guest lectures which is normally an isolated single lecture (Crawford Camiciottoli, 2004).

Subsequent study by Flowerdew and Tauroza (1995) disputed earlier claims that discourse markers did not aid lecture comprehension. Their study which tested the listening to an authentic lecture with discourse markers and one with deleted discourse markers showed

that without discourse markers, students found it very difficult to understand the lecture. They questioned the methodology of earlier studies that used discourse markers and second language listening comprehension materials that did not accurately reflect the uses and placement of discourse markers in natural first language discourse. Flowerdew and Tauroza (Ibid.) found that the most frequently used discourse markers in their lecture data were *all right, and, because, but, now, OK, right, so, then* and *well*. Where they occurred, the discourse markers in their lectures were mostly seen to be operating a pragmatic function: marking a switch in communicative function. A few were observed to combine a pragmatic and semantic function.

A more recent experiment on the use of discourse markers in second language student comprehension by Eslami and Eslami (2007) on 72 native Persian university students training to become English language teachers also supports the idea that discourse markers have a positive effect on lecture comprehension. They link the presence of specific discourse markers (e.g. *frame markers, person markers, hedges* and *glosses)* to better listening and performance in the comprehension test of the group that were exposed to them.

Othman (2007) exploratory study of discourse markers in academic lectures which also used lectures from the BASE corpus to compare the results of her corpus, found similar distribution pattern of frequency of uses of discourse markers. 'Connective markers' like *and* is used most frequently in both corpora. The results also suggest that other connectors as *so, and* and *but* also display significant functions as discourse markers in lectures. However, the comparison between 'interactive conversational markers' showed that the use varied according to individual lecturers but indicated that individual lecturers attempt to engage interaction with students during the lectures. The discourse markers that were of conversational features were infrequent between both corpora and it was suggested that

factors as styles, disciplines, modes of lectures, or even specific lecturers may influence the use of discourse markers.

In the analysis of the different communicative lecture introduction sub-functions, my own study will examine the lexico-grammatical realisations of these sub-functions which will include discourse markers.

2.2.2 Studies on personal pronouns in lectures

The use of pronouns in lectures has been viewed as an effective means of creating bonds with students and successful teaching has been seen to use inclusive pronouns appropriately (Rounds, 1987b). Pioneering the studies on personal pronouns in lectures is the dissertation and subsequent two articles by Rounds (1987a), (Rounds, 1987b). Rounds (1987a) highlights that the use of pronouns would be different than in most conversational settings, as classrooms are different in that the subject matter in classrooms is more overtly important to the participants than the creation and maintenance of social relationships. Furthermore, classroom language is significantly message-oriented when the students are in the classroom because they want to learn the subject matter and the teacher's job is primarily to teach. It is this dual functionality of classroom language which plays a vital role in determining personal pronoun usage.

Using a corpus of five 50-minute videotapes of native and non-native English-speaking teaching assistants of mathematics delivered at the University of Michigan, Rounds (1987a) found that '*we*' was the most frequently employed personal pronoun. It has to be noted that teaching assistants are novice lecturers compared to American 'Professors'. '*We*' was seen as a useful device for the teacher because of its dual functions of exclusive and inclusive use. The use of exclusive '*we*' can show the teacher's authority, by referring to both the teacher

and the experts in the field, while inclusive '*we*' can form solidarity between the teacher and the students in the class. On the other hand, '*you*' has been understood to maintain some distance between them. Apart from the traditional 'inclusive/exclusive we', Rounds found three other distinct sets of discourse-defined referents of '*we*', namely, (1) '*we*' in contexts in which '*I*' is more specially marked, (2) '*we*' for students and (3) '*we*' which can be replaced by the encompassing pronoun '*one*', as seen in Table 3.

Table 3 Round's classification of referents of '*we*' (Yeo and Ting, 2012 pg.110)

First person pronoun – we	**Definition**	**Examples**
1. Inclusive 'we'	Instances in which the addressee is included (I + you)	'We are going to relax for a few days…'
2. Exclusive 'we'	Instances in which the addressee is excluded (I + they)	'We say the function f of x…is differentiable…at a point x…if its derivative exists there….'
3. We for 'I'	The speaker (teacher) is the only referent	'Let's write this thing on the bottom the way we originally wrote it.'
4. We for 'you'	The addressee (student) is the sole referent	'I want to look at some of the problems we had for today…'
5. We for 'anyone', substituted by 'one'	Anyone who does calculus (indefinite)	'We (mathematicians) call that number, that number that we get, that function we get here, the derivative…'

Whilst Round's research became a foundation for subsequent research on pronouns in university teaching, it is important to note that the focus of Round's studies (1987a,b) was to identify successful the performance of teaching assistants and to find the link with the use of personal pronouns to successful teaching. However, further research would be needed to determine if lecturers used '*we*' as often as teaching assistants (Okamura, 2009).

Following Round's study on pronouns, Fortanet (2004b) examined the usage of the personal pronoun '*we*' in university lectures in MICASE and also those from the University of Michigan like Rounds (1987b). A reduced corpus of academic talk related to mathematics was also analysed to look at the results of the discipline domain. Her findings contradicted those of the previous research and found that in MICASE and that '*I*' and '*you*' are used more. A possible reason for the high percentage of '*we*' found by Rounds (Ibid.), in which is not validated by research results, can be related to recent tendencies observed in academic language. Fortanet (2004b) suggests that it is now more acceptable to refer to the self as '*I*' in academia compared to 20 years ago. In terms of the referents of '*we*', Fortanet (Ibid.) found that it was mainly used to refer to a larger group of people, of whom the speaker is the representative or spokesperson; also known as the 'inclusive *we*'. Though more evidence would be needed to make an assertive statement, this result may suggest that teachers use 'inclusive *we*' in an effort to co-operate with the students and 'exclusive *we*' to create distance between the speaker-teacher and the audience-students. Therefore, her study suggests that it could be said that '*we*' is more often used as a co-operative than as a distancing device nowadays in academic speech.

More recent research by Okamura (2009) argues that the use of pronouns reflects the purpose of academic speech and the relationship between the speaker and the audience. Analysing undergraduate lectures and public lectures from MICASE, Okamura (Ibid.) found that '*you*' was most frequently used in undergraduate lectures while '*I*' was employed more in public lectures. However, a closer examination of the surrounding words of these pronouns found that '*you can see*' was used in both types of lecture in guiding the audience, irrespective of the type of lecture. Also highlighted is the interesting use in the two corpora of '*if*' which is the most common word to go before '*you*', and '*you can see'* is one of the most common

collocates. This finding shows that '*you*' is not used by lecturers to create distance between them and the audience. It also shows to researchers that we need to examine both individual choice of personal pronouns and its surrounding lexis being the preceding conjuncts and the proceeding verbs of pronouns. In the famous words of Firth (1957, p.11):

'You shall know a word by the company it keeps'

2.2.4 Studies on lexical bundles in lectures

Well-known research on lexical bundles in lectures to be discussed starts from the seminal work of Biber et al.(2002) who composed the *Longman Grammar of Spoken and Written English*. It has proved to be a very useful reference for students of English language and researchers by acknowledging and showing the grammar differences between spoken and written language. Their research used corpus based research methods to compare the most common multi–word units in spoken and written registers. The results highlight the high frequency in what they call 'classroom teaching' (which presumably includes lectures) compared to conversation, textbooks and academic prose and can be seen in Figure 2.

Figure 2 Overall frequencies of lexical bundles across registers (Biber et al., 2004 p.379)

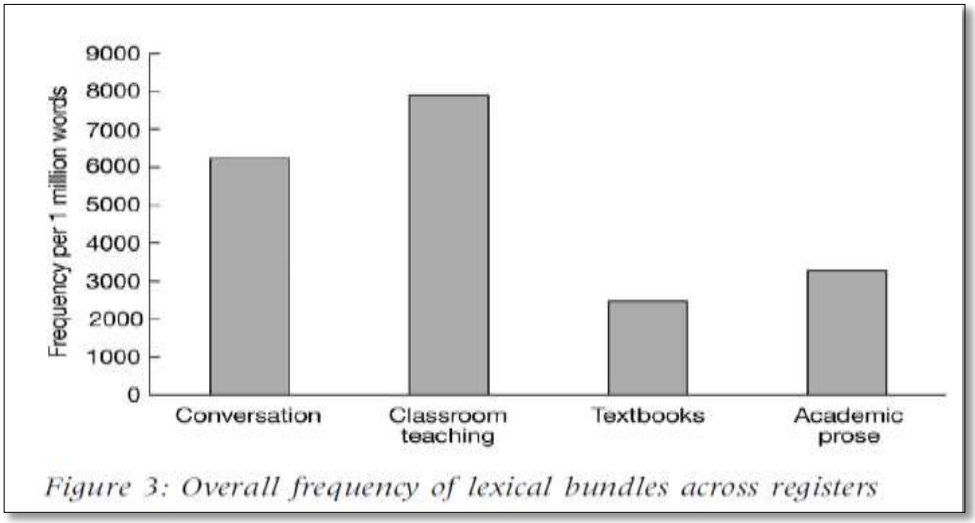


Figure 3: Overall frequency of lexical bundles across registers

The study of 'lexical bundles' defined by Biber et al. (2004) as 'Multiple word sequences' discovered that in classroom teaching uses, which includes discourse organising bundles which were labelled 'Topic Introduction/Focus bundles', they signal what the lecturer is introducing in the lecture. Examples of these lexical bundles are '*I want to talk about', 'What I want to do is', 'If you look at', 'What do you think...?'*. Finding lexical bundles within different rhetorical functions is central to this study of understanding lecture introductions.

Following that study, Biber (2006) found that classroom teaching uses twice as many different lexical bundles as conversation and four times as many as textbooks. The high density of lexical bundles in classroom teaching can be explained by the fact that it makes dense use of lexical bundles which represent declarative and interrogative clause fragments like conversation. It also makes dense use of noun phrases and prepositional phrases, which is similar to academic prose.

Another study by Fortanet (2004a) examined the lexical phrase '*I think'* in spoken academic English compared to the discussion parts of research articles and found that it is more frequently used in writing, as opposed to academic lectures. Relating it to Hyland's classification of stance, Fortanet (Ibid.) believes that when used in academic lectures '*I think'* is more often used to enhance the relationship with the audience, rather than to evaluate the propositional matter of communication. This agrees with the findings of Okamura (2009) mentioned earlier, of examining the surrounding words of the pronoun *'you'* in their corpus, the lexical phrase '*you can see'* was discovered to help guide students to listen to the lecture, which is far from the distancing effect this pronoun is claimed to have when used by lecturers. By examining the pronoun '*I* ' alone, one may assume that the focus is on the lecturer being the speaker which is the opposite of its use to enhance the relationship with the audience.

Nesi (2006) investigated the cohesive role of lexical bundles in a corpus of 160 university lectures (120 from the BASE corpus and 40 from MICASE). Like the bundles from the TOEFL 2000 Spoken and Written Academic Language (T2K SWAL) teaching sub-corpus investigated by Biber et al. (2004), the bundles in the lecture corpus included both 'oral' and 'literate' elements. The majority of frequently occurring bundles were found to be used to signal discourse relations, although their cohesive function was not necessarily obvious when listed out of context.

With the wealth of research on lexical bundles in academic discourse, the lexical bundles that can be found in lecture introductions will be discussed further in the corpus analysis of this study.

2.2.5 Studies on questions in lectures

Questions are textual features in academic lectures that have been seen as an important interactional tool used by teachers to activate and facilitate the learning process (Crawford Camiciottoli, 2008). Although the study of Crawford Camiciottoli (2008) contrasted the usage of questions in the disciplinary domain of Business Studies lectures and written texts, the results found that questions were a characterising feature of both. In addition, although appearing throughout lectures, questions are also used by lecturers in lecture introductions.

Examining the questions asked by lecturers cannot be mentioned without referring to Sinclair and Coulthard (1975) well researched Initiative-Response-Feedback (IRF) Structure. In my thesis, the lecturer's questions are often seen as operating through this structure. The IRF structure is a pattern of discussion between the teacher and learner, whereby the teacher initiates, the learner responds and the teacher gives feedback. Whilst this approach has been criticised for not encouraging what the learner really wants to say but rather what the teacher

does, it has been useful in the analysis of short structured parts of teacher talk, as associated with the different communicative functions used in this study. The IRF approach to the analysis of interaction has been used in a number of studies investigating sequential organisation in spoken exchanges, for example in school classrooms (Mehan, 1985), in foreign language classrooms (Willis, 1992), in everyday conversations (Francis and Hunston, 1992) and student university seminar discussions (Basturkmen, 2002) to name a few. The IRF structure itself has been further elaborated to account for more extended sequences of spoken discourse (Hoey, 1991, Brazil and Coulthard, 1992).

As the students in the data of this study are adults, the environment being a university presents some differences in the realisation of the exchanges when compared to the original studies in school classrooms. The data in this study suggests that the exchanges are sometimes a negotiation of direction of the lecture, while in other cases it is a case of quickly checking students' comprehension which will be explored further in Chapter 5 on genre analysis.

2.3 Studies with a learning focus of lectures: authentic lectures, listening strategies

One of the main beliefs underlining the design of the thesis is that research on 'real language' should inform language teaching so language learners would be better equipped to cope with real life discourse. The study by Tauroza (2001) on second language lecture comprehension research in naturalistic controlled conditions argues for naturalistic conditions when carrying out research about lectures. This is as the lecture experience in the experiment is very much different than the actual authentic lecture experience. The study outlines three fundamental characteristics of lectures in Anglophone universities:

1) They are required to combine information coming from both visual and aural sources.

2) Students usually hear a lecture presented in ‘conversational style’ (Dudley Evans and Johns, 1981) rather than listening to a lecturer reading aloud from notes.

3) In lectures, students are required to process stretches of discourse lasting 15 minutes or longer.

Therefore, if we are to expect students to be able to be competent at listening to lectures, then it is only preferable to expose them to naturally sounding lectures which reflect what happens in the real world. This study explores some samples of authentic lecture discourse for that very reason.

The study by Olsen and Huckin (1990) looked at students’ strategies for listening to lectures. Fourteen non-native student graduate and undergraduate students watched an authentic 16-minute videotaped lecture on mechanical engineering and were asked to provide immediate recall summaries. The study concluded that some students failed to grasp the main points, even though the lecturer structured it clearly. Those students who successfully identified the main points were discovered to use a ‘point-driven’ strategy. A ‘point driven’ strategy was defined as listening by taking a broader, more context-sensitive view of the interaction between the speaker and listener, including the speaker’s presumed intention, the goals of the genre and the larger situation of which the discourse is a part of, the potential role of issues in a larger effects also including the cultural differences between the speaker and listeners. They further suggest that students are taught to listen to lectures in a more rhetorical, strategic way, especially if the lecture is one that is not merely one that conveys information, but one that is focused on building an argument, as in the disciplinary domain of engineering.

Examining the language of a native and non-native speakers’ language in lecturing, the study by Khuwaileh (1999) found that chunks, phrases and body language all play a crucial

role in the learners' comprehension of academic lectures. The 7 specific aspects examined in lectures can be seen in Table 4. Group A has a native English speaker lecturer while Group B has a non-native English speaker lecturer but shares the same mother tongue as the students.

Table 4 The use of chunks, phrases and body language in Khuwaileh's (1999) study

Lecturing aspects	Used in group A	Used in group B
1. Introductory chunks or phrases	Yes ++	Yes
2. Helpful speaking chunks	Yes ++	Yes
3. Reading chunks	No	Yes +
4. Paraphrasing chunks	Yes ++	No
5. Illustration chunks	Yes ++	Yes -
6. Body language	Yes ++	No
7. Translation, borrowing or code mixing	No	Yes ++
-, used poorly; +, used fairly often; ++used frequently; yes, satisfactorily; no, did not use at all.		

The study discovered that the students in group A had higher quiz results compared to group B and that it was attributed to the lecture delivery of lecturer A. An interesting point to note is that the lecturer for group A did not share the same mother tongue but the students in group B did and therefore the ability to translate or code mix whilst lecturing which is often

assumed to be something useful for non-native students of English was found to be not very important. An observation highlighted that both teachers used general sentences or phrases like: “What I am going to talk about today is the properties of materials . . .” or “Today we will be examining various materials used in . . .”. In both lectures, the beginnings were considered good, but the teacher of group A added another dimension which was the process of asking the learners questions related to their own world at the beginning and throughout the whole lecture. Though my own study is descriptive in nature, it would be interesting to see how many lecturers employed this in their lecture, which can be related to the lecture introduction framework sub-functions of ‘Show Importance’ or ‘Relate New to Given’ (see Chapter 5 Genre Analysis for further information).

2.4 Studies with a practice focus: cultures and disciplinary variation

In researching lectures given to non-native speakers of English, Flowerdew and Miller (1995) highlight the importance of understanding four dimensions of culture that need to be taken into consideration: ethnic, local culture, academic and disciplinary. The study situates itself at the City University Hong Kong and gives examples of the different dilemmas faced by students, for example not feeling comfortable with participating in lectures due to expectations of their Chinese Confucius background, students not sharing common knowledge of life with lecturers in relation to examples drawn on, lecturers’ different expectations of the academic system as opposed to those of students and the specialised vocabulary used in disciplinary domains which native speaking lecturers do not feel is their responsibility to teach students. These findings are also relevant for my study because

although the lectures in BASE corpus are given by native speaker lecturers at British universities, the students would more than likely be local and international students.

2.4.1 The notion of disciplinary domains

Among the research questions posed in this study is the impact on discipline on the delivery of lecture introductions. My own research questions echoes that of arguably the most prominent researcher of the notion of disciplinary domains, Becher (1987 p.261) in saying that:

"In any given field, one can identify examples of characteristic working practices which throw light in the underlying structure of the body of knowledge which comprises that field. The inferences which can be made from one to another are useful in enhancing our understanding of the process differs between different knowledge domains"

Therefore, if this hypothesis is tenable, it can be expected that there are disciplinary differences in lecture introductions and that it can be reflected in the linguistic forms used by lecturers.

The idea of the four distinctive disciplinary domains made popular by Becher (1994) was developed from the research on disciplinary areas of Biglan (1973) and Kolb (1981) as seen in Table 5.

Table 5 Becher's (1994) broad disciplinary groupings based on Biglan (1973) and Kolb's (1981) research

Biglan (1973)	Kolb (1981)	Disciplinary areas
Hard pure	Abstract reflective	Natural sciences
Soft pure	Concrete reflective	Humanities and social science
Hard applied	Abstract active	Science-based professions
Soft applied	Concrete active	Social professions

Becher famously likened the disciplinary groups to "academic tribes" by claiming that each discipline, by have their own set of intellectual values and cognitive theory, has "tribal" like features of shared and specialised language, exclusionary practices, distrust of other tribes and complex initiation rites. Table 6 illustrates Becher's (1987) broad disciplinary groupings with the description of the nature of knowledge and associated disciplinary culture one might find. Becher stresses that the difference in disciplinary knowledge and culture has implications for its research, policy and practise in academia.

Table 6 Becher's (1987) Knowledge and culture by disciplinary groupings

Disciplinary grouping	Nature of knowledge	Nature of disciplinary culture
Pure science (e.g physics) : 'hard-pure'	Cumulative; atomistic (crystallines/tree-like) concerned with universals, quantities, simplification; resulting in discovery/explanation	Competitive, gregarious, politically well organised; high publication rate; task-oriented.

Humanities (e.g history) and pure social sciences (e.g anthropology) : 'soft-pure'	Reiterative; holistic (organic/river-like); concerned with particulars,quantities, complication; resulting in understanding/interpretation.	Individualistic; pluralistic; loosely structured; low publication rate; person-oriented.
Technologies (e.g mechanical engineering) : 'hard-applied'	Purposive, pragmatic (how-how via hard knowledge) ; concerned with mastery of physical environment; resulting in products/techniques.	Entreperenial, cosmopolitan; domination by professional values; patents suitable for publications; role orientated.
Applied social sciences (e.g education): 'soft-applied'	Functional, ulitarian (know-how via soft knowledge); concerned with enhancement of (semi) professional knowledge; resulting in protocols/procedure.	Outward looking; uncertain in status; dominated by intellectual fashions; publication rates reduced by consultances; power oriented

Another important point highlighted by Becher (1994) is that disciplinary cultures transcends national and often international boundaries. This is evidenced through the easy mobility of academic staff from one institution in one country to another, the common readerships of international journals; the existence of international conference and collaborative enquiries of researchers in more than one university or country. And although there are differences between the disciplinary domains, Becher (1994) citing Bailey (1977) points out that "universities operate as a community culture which directs interaction between the many distinct and mutually hostile groups". This community culture, which uses the same teaching methods; one of them being the lecture genre, is fascinating to explore as it is the underlying teaching activities within the lecture which reflect the nature of these disciplines (Neumann and Becher, 2002). The ways in which lecture introductions differ according to their disciplinary domains is one of the main research questions this study is concerned with.

2.4.2 Studies which support discipline as having an effect on university teaching

A few studies explore and report the relationship between discipline and university teaching. One such study is of Brown and Bakhtar (1988) which suggested there are five distinctive styles of lecturing which are associated with different disciplines. Conducted at Loughborough and Nottingham universities, it revealed that oral lecturers were most common in humanities, the visual lecturers in the science discipline, exemplary lecturers were more common in the humanities and biomedical sciences, as were eclectics. Amorphous talkers were more common in science and engineering. They further claimed that the styles of lecturing were strongly associated with subject areas but not with status or with experience. A summary of these styles can be seen in Appendix I.

The study of Neumann (2001) on disciplinary difference and university teaching highlights that the nature of the discipline reflects the type of teaching. Although lectures seems to pervade all disciplines and is the dominant mode of teaching, it is not surprising that academics in the humanities ('soft' disciplines) spend most times on lectures, seminars and tutorials but those of natural sciences, medicine ('hard' disciplines), technology ('applied hard' disciplines) teach through laboratory teaching, exercises and field trips. Furthermore, academics in technological disciplines ('applied hard' disciplines) spend much time on lectures and little on seminars.

Disciplinary difference was also observed in curriculum and assesment issues. Neumann (2001) citing Donald (1983) noted that hard pure fields tightly structured courses with highly related concepts and principles while soft pure fields had open course structures

and were loosely organised. Neumann (Ibid.) also cites Braxton (1995) in pointing out that hard disciplines place a greater importance on career preparation and emphasise cognitive goals such as learning facts, principles an33d concepts. Soft disciplines place greater importance on broad general knowledge, student development and effective thinking skills as critical thinking. This is also found in Hativa (1997)'s study which found that soft pure fields placed greater importance on creativity of thinking and oral and written expression, while hard pure and hard applied placed stronge mphasis in ability to apple methods and principles. The study observed the difference between undergraduate lectures in a hard pure physics and hard applied engineering discipline lectures, shows that lecture teaching reflects differences in their disciplinary knowledge validation and in how their teachers transmit the main goals of their fields and explaining the basic structure, content and teaching methods in their discipline. Both lectures had different main activities where the physics lesson had new mathematical derivations, numerical techniques and mathematical proofs while the engineering lecture's main activity was a detailed description of a process. The other difference was that the two domains interpret differently the concept of application of a theory where the physics lesson used mathematical derivations to solve a problem while in the engineering lesson it was about understanding how electronic devices work.

Neumann and Becher (2002) claim that 'pure hard' knowledge is cumulative in nature where the teaching content is linear, straightforward and uncontentious. The instructional method of teaching has been described as mass lectures and problem-based seminars and the focus of student learning has been claimed to be on fact retention and the ability to solve logical structured problems. The knowledge communities tend to competitive but gregarious, and joint or multiple authorship is common. In some topic areas, the use of overhead projectors and circulation of handouts emphasise key-points while slides and other media

illustrate in visual form while demonstration experiments are mounted or simulated to replicate established empirical findings. In contrast, 'pure soft' disciplines are holistic and qualitative in nature and the teaching is face to face class meetings and tutorial meetings which includes discussions and debates. Creativity in thinking and fluency of expression are emphasised in student learning. Scholarly enquiry is a solitary persuit, manifesting in a limited overlap between a few researchers. 'Applied hard' discipline on the other hand, is linear in sequence and based on factual understanding. It is concerned with the mastery of the physical environment. The teaching methods concentrate on simulations and case studies reflecting their future professional settings. While 'applied soft' disciplines knowledge is accumulated in a re-iterative process teaching methods are close to 'soft pure' discipline and the focus is on personal growth and intellectual breadth.

The study of Lindblom-Ylänne et al. (2006) reports the relationship between disciplinary domains and teaching which showed that teachers of 'hard disciplines' were more likely to apply a teacher-centred approach to teaching. On the other hand, 'soft disciplines' takes a more student-centred approach to teaching. However, there were not significant differences between 'pure' and 'applied' groups of either the 'hard' or 'soft' disciplines. They claim that their results was in line with the earlier research of a study by Lueddeke (2003) and the study of Trigwell (2002) which showed that design teachers were significantly more student centred than science teachers. It was noted that this is an indicator of the possibility of disciplinary difference as in the study no control was imposed on the teachers' experience of the teaching context. Their study was also consistent with Neumann and Becher (2002)'s study which associate 'hard disciplines' with mass lectures and problem-based seminars, and of simulations and case studies in relation to professional settings. Whereas the 'soft

disciplines' were associated with face-to-face and tutorial teaching which includes discussion and debates.

Flowerdew and Miller (1995) also observed different disciplinary lecture structures at their university. For example, in economics, lectures were structured around related concepts which are illustrated by examples, and in public and social administration, lectures may compare between different models and systems. They also cite Hoey (1983) in his observation that in computer science discipline, lectures typically followed a repeated pattern of problem-solution. Another study by Dudley-Evans (1994b) has shown the discourse structure of Highway Engineering lectures to have a 'point-driven strategy' and Plant Biology lectures to follow a framework built around the systems of plant classification. These observations however have not been studied on a large scale to verify such claims as disciplinary practice.

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Through the corpus tool Wordsmith Tools, Thompson (2006) generated the keywords of Economic lectures from the BASE corpus. The results saw that the Economics discipline had a lot of nouns, the definite article *the*, pronouns *we; they; their* and the verbs *let;*

represent; maximize; consume and unsurprisingly mathematical symbols as key. The strong presence of nouns was attributed to the prevalence in Economics discourse of abstractions and of the tendency to reify process. An Academic Lecture Word List (ALWL) based on the BASE lectures was also compiled, resulting in 230 word families modelled from (Coxhead, 2000) Academic Wordlist. The top 20 headwords can be seen in Table 7.

Table 7 Top 20 headwords in the Academic Lecture Word List (Thompson, 2006)

Headword	All	AH	LS	PS	SS	Range
ECONOMY	746	28.6	2.3	9.0	60.2	4
LECTURE	600	31.7	18.3	27.7	22.3	4
OBVIOUS	597	21.4	33.7	18.9	26.0	4
STRUCTURE	561	19.8	26.4	38.7	15.2	4
AREA	535	17.9	28.6	18.7	34.8	4
DATA	520	1.3	22.3	59.2	17.1	4
VARY	513	1.2	18.9	65.5	14.4	4
THEORY	478	31.6	4.4	25.1	38.9	4
RESEARCH	465	5.8	43.7	6.0	44.5	4
ISSUE	453	16.6	21.6	10.6	51.2	4
PROCESS	452	21.0	12.6	16.2	50.2	4
ANALYSE	418	15.8	6.0	42.6	35.6	4
ASSUME	413	12.3	5.3	61.3	21.1	4
INDIVIDUAL	411	19.5	16.3	19.7	44.5	4
PERIOD	392	45.2	20.4	8.7	25.8	4
DEFINE	370	15.4	16.2	37.0	31.4	4
FUNCTION	361	7.5	21.9	54.6	16.1	4
RESPOND	354	11.9	48.3	11.0	28.8	4

While the whole wordlist itself presents a variety of categories, a different picture emerges when it is resorted according to frequency in accordance with disciplinary domains. Thompson (2006) observed that different word families associate themselves with certain disciplines more than others and it thus has been suggested that with knowledge about the use of these word families according to disciplinary domains, researchers and teachers can be informed of the range of phenomena and concepts to be explored. My own lecture introduction wordlist in Chapter 7 discusses the high frequency lexis which makes up the

genre of lecture introductions but groups the discussion according to grammatical categories, as the corpus is not big enough to generate word families. The disciplinary domain influence in lecture introductions will be discussed further in a separate keyword analysis in Chapter 8.

2.5 Studies with a process focus: lecture delivery

Dudley-Evans and Johns (1981) identify the three distinct common lecturing styles adopted by lecturers. The first being the 'reading' style, where the lecturer reads from notes or sounds like they are reading from notes and only occasionally stops to either look at the audience or mention something that is not written down. The second is the 'conversational' style, where the lecturer speaks informally, with or without notes, which seems less predictable. The third lecturing style, 'rhetorical', is characterised by rhetorical questions and frequent digressions and asides. DeCarrico and Nattinger (1988) only found evidence for this style in cases where the lecturer was being recorded on videotape and acted like a performer. Interestingly, this observation is true in some of the lecture introductions in my own corpus. They (Ibid.) also highlight that the 'conversational style' is more common in universities in the US and this is my own observation of British universities too.

Using the three styles of lecturing in classifying different lexical phrases, DeCarrico and Nattinger (1988) examined different macro-markers adapted from Chaudron and Richards (1986) study, which they called 'macro-organisers' and recommended that those that fall within the conversational style be taught to students to sensitise them with building blocks can help them with understanding lectures, as can be seen in Table 8.

Table 8 DeCarrico and Nattinger's (1988) Macro Organizers

Lexical Phrase Discourse Organizers A. GLOBAL MACRO-ORGANISERS		
1.Topic Markers	2.Topic Shifters	3.Summarizers
Conversational Style	Conversational Style	Conversational Style
Lemme start with… The first thing is… What I'd like to do is… We'll be looking at… Let me talk about X, then we'll go to Y	So let's turn to… Let me go to… On to… Let's look at… One final point/thing is… I'd like to talk about... Back to… Lot more to talk about, but on to… All right Now (falling intonation + pause) OK (falling intonation + pause)	All this says is… So the theory goes… The theory goes, then… So there you've/what we've got is… To tie this up You can see What I'm saying is that… OK…(level intonation)
B.LOCAL MACRO-ORGANIZERS		
4. Exemplifiers	5.Relators	6.Evaluators
Conversational Style	Conversational Style	Conversational Style
See if X clears this up If you've seen… then you've seen/you know… One way is… X something like that Take say (X) (here) for example Take something like… (Now) look (how)/what's going on here/What X says Here's one And that is…	So again You might say that… This ties in with … Same way here This has to do with … But look at … That would go not only for X but (also) for Y Anytime (X) there's (Y) X so you expect to find Y If you look at X, here's Y	As X would have us believe X is fine with me No problem with that But it…let me tell you Look what's going on here Look how important X might not work

Not all macro-organizers in Table 8 might be identifiable in the lecture introduction corpus as the present study focuses on the introductory section of lectures. Also, some phrases sound American like 'Let me/ Lemme start with' and 'So the theory goes'. Interestingly, 'Okay' and 'Now' followed by falling intonation and pause, which is not really a phrase is considered to be a topic shifter macro marker. What this study highlights is the effects of

lecturing styles on the grammatical realisation of lecture introduction functions and that lecturers' employ a variety of lexical phrases to organise their lectures.

The study by Deroey and Taverniers (2011) examined the BASE Corpus for lecture functions and identified the following functions in Figure 3.

Figure 3 Deroey and Taverniers's (2011, p.20) overview of functions and sub-functions in the BASE Sample

Functions	Sub-functions
Informing	Describing Recounting Reporting Interpreting Demonstrating
Elaborating	Exemplifying Reformulating
Evaluating	Indicating attitude Indicating degree of commitment
Organizing discourse	Orienting Structuring Relating
Interacting	Regulating interaction Involving the audience Establishing a relationship with audience
Managing the class	Managing organizational matters Managing delivery Managing the audience

The six main functions identified in the study (Figure 3) show functions delivered by lecturers that are unique to this spoken academic genre. Whilst the functions and sub-functions identified in Deroey and Taverniers (2011) study encompass the whole lecture, my study focuses on the lecture introduction. This is as I believe it contains a different set of communicative functions which shall be discussed in detail in Chapter 3 on the lecture introduction genre.

2.6 Chapter summary

The literature surrounding my research questions on examining lecture introductions sees it divided into the four overlapping research areas: textual focus, practice focus, process focus and learning focus. All have one common aim which is to enrich the linguistic knowledge of what lectures are and to help improve students' listening to lectures. The use of discourse markers in lectures have seen to improve comprehension, whilst the flexible use of personal pronouns have been seen as helping to bridge the power distance gap between the lecturer and students, thus creating a positive learning environment. The variety of lexical bundles in lectures identified are also of interest in this study, as the lecture genre is unique in that it shares lexical bundles in common with conversational spoken language and yet being academic, it presents itself with lexical bundles which are similar to academic written language. The importance of using authentic language for research to inform language teaching to prepare students for real lectures is also highlighted. In preparing students to listen to lectures, successful students seemed to be those who apply a more rhetorical (point driven) approach to listening and those who comprehend how the organization of the lecture fits into the larger goals, agendas and contexts in their fields. What also helps students with understanding lectures are appropriately used chunks and phrases and the body language of the lecturer. Alongside that is awareness of the different cultures the lecture is situated in (ethnic, local, academic and disciplinary) which shapes them and needs to be considered in the analysis. The notion of disciplinary culture and knowledge, central to this study, has been claimed to have influence on academic discourse in the different disciplinary domains. Disciplinary difference has been noted in lectures, whereby specific engineering disciplines prefer certain lecture structures in terms of the way information is presented (Dudley-Evans, 1994b, Flowerdew and Miller, 1995). Thompson's (1996) study on economic lectures in the

BASE corpus highlights significant words in the disciplines compared to others. Gaps in the literature point to more research on other disciplinary variations in lectures and of a larger scale. This is an area explored further in this study in relation to the rhetorical functions used by lecturers (Chapter 5) and keywords (Chapter 7) in lecture introductions.

The next chapter focuses on literature review on lecture from a genre perspective which will further shape the direction of this thesis.

CHAPTER 3: THE LECTURE INTRODUCTION SUB-GENRE

3.1 Introduction

'You tell them what you are going to tell them, then you tell them, and you tell them what you have told them.' Aristotle

Aristotle's famous three steps guide for delivering a presentation suggests that a lecture has an introduction to the content, then the detail is presented and finally there is a summary of the lecture (Reece and Walker, 2007).

Following the previous chapter on the review of surrounding literature on relevant research on lectures in applied linguistics, this chapter reviews the literature on lectures as a genre in situating this study and defines the view of the lecture introduction adopted in this study. The genre based approach adopted in this study is defined alongside studies on spoken academic genres and studies which combine the genre and corpus based approach. The gaps in the literature on the lecture introduction genre are discussed and finally the lecture introduction framework is proposed.

3.2 Definition of "genre based approach" and "genre"

Swales (1990) views genre analysis as the study of how language is used in a particular setting. Defining the genre-based approach is not straightforward as it owes it influences to a range of other applied and non-applied fields such as sociolinguistics, text linguistics and discourse analysis, as summarized by Swales (Ibid.) in Figure 4. Bhatia (2004, p.22) also views the genre theory in different ways, quoting a variety of researchers within genre based studies:

'It has been defined either as a typification of social and rhetorical action, as in Miller (1984), and Berkenkotter & Huckin (1995), as regularities of staged, goal oriented social processes as in Martin (1993), or as consistency of communicative purposes, Swales (1990) and Bhatia (1993), genre analysis is often viewed as the study of situated linguistic behaviour.'

Figure 4 Swales' (1990, p.14) influences on the genre based approach

Variety studies	→	Linguistic responsibility	→	Genre-based approach
Skill and strategy studies	→	Situation specific practices and processes	→	
Situational approaches	→	Text-roles and environments, options and choices	→	
Notional/functional approaches	→	Communicative purposes	→	
Discourse analysis	→	Layered texts	→	
Sociolinguistics	→	Categories	→	
Writing contexts studies	→	Ethnographic findings, rhetoric as social action	→	
Cultural anthropology	→	Local knowledge, significance worlds	→	

Through the different fields which the genre based approach is influenced, according to Swales (1990) a genre is seen as comprising of five main characteristics, as summarised in Table 9:

Table 9 Summary of Swales' (1990, p.45-54) five characteristics of genre

1. A genre is a class of communicative events.
2. The principal feature that turns a collection of communicative events into a genre is a shared set of communicative purposes.
3. Exemplars or instances of genres vary in their prototypicality.
4. The rationale behind a genre establishes constraints on allowable contributions in terms of their content, positioning and form.
5. A discourse community's nomenclature for genres is an important source of insight.

This definition has been argued Bhatia (1993) as needing further elaboration. The communicative purpose of the genre is seen to shape the genre and gives it an internal structure. Thus, if there is a change of a communicative purpose, then that will give a different genre, whereas minor changes in the communicative purpose or modifications help to distinguish sub-genres. However, it is not possible to draw a fine line between genres and sub-genre (Ibid., p.14).

Labelling the lecture introduction as a genre or sub-genre differs from one researcher to another. Bhatia (Ibid.) further claims that scientific and academic introduction to research articles form a separate genre. In this sense, a whole cohesive text can be split into different genres, and the other parts of a text like the main body and conclusion become separate

genres. Examining categories used in different corpora, Lee (2001) observes that the term "text categories" has been used in ICE-GB and LOB corpus are equivalent to "genres" and "sub-genres" in BNC Index. Swales (1990) viewed the Research Article Introduction as a genre of its own having well defined communicative purpose and structure which is also agreed to by Bhatia (1997) as qualifying them as a genre. However, Briones (2012) notes that Dudley-Evans (1997) considers the Research Article Introduction as a sub-genre of the Research Article genre. Also, the introduction section of the scientific conference presentation is seen as a sub-genre in Rowley-Jolivet and Carter-Thomas (2005) study. In the present study, the lecture introduction can be viewed as a sub-genre of the lecture genre seen through its different communicative purpose, as seen in Table 10.

Table 10 Communicative purposes of academic lecture and lecture introduction sub-genre compared.

	Communicative purpose
Academic lecture	For a lecturer to impart knowledge to students about a particular subject and for students to obtain knowledge about a subject by listening to the lecturer.
Lecture introduction	For a lecturer to introduce the main lecture and other course issues and for the students to obtain information regarding the main lecture and course issues.

The communicative event of a lecture introduction is easily discernible, whereby verbal communication is an integral part of the activity and it occurs at the beginning of a lecture session. There are usually two main "parties" – the lecturer and a group of students and the communicative event takes place in a lecture hall in an institution of higher education. Whereby the lecture genre is known, as when a lecturer (or some lecturers) deliver a long stretch of mostly monologue speech to impart knowledge on a particular subject, the lecture

introduction is relatively shorter, being the beginning part of the lecture and its communicative purpose is for a lecturer to tell/signal/notify students regarding the structure of the main lecture and other course issues and for the students to obtain information regarding the main lecture and course.

Alongside academic lectures, other lecture genres that are well-known are the plenary lecture (also known as the keynote speech at conferences), public lectures (talks targeted at educating the public which are usually science related) and inaugural lectures (usually well-known academicians or professors with the opportunity to inform colleagues, the campus community and the general public about their work to date, including current research and future plans); all which have difference communicative purposes and audiences.

Although Swales' (1990) book *Genre Analysis* made popular the idea that communicative purpose was seen as central to the definition of genre, a decade later Askehave and Swales (2001) claimed that genres can have multiple purposes and that this might be different for each participant involved and that a communicative purpose cannot always be used, by itself, to decide which genre category a text belongs to. Of the few genres they use to illustrate this point, the 'homely' genre of a 'shopping list' showed that although the obvious communicative purpose would be as a list to buy items while out shopping, interviews with members of the public unveiled that for some it served the purpose of not to buy things outside of the list. They also argue that someone might have other personal purposes, for example an amorous purpose of a young man in love with a lady at a grocery shop who buys items on a shopping list just to see her.

In suggesting solutions for their "quandary", a 'broad-band' communicative approach was considered, alongside Halliday and Hassan's (1989) obligatory structural elements of a

genre which were discussed when classifying genre. A problem with the latter, which is also a problem with the lecture introduction genre, is that there are some genres that do not have specific obligatory structural elements but that mainly consist of optional ones.

> 'We thus suggest purpose (more exactly sets of communicative purposes) retains the status as a 'privileged' criterion, but in a sense different to the one originally proposed by Swales. It is no longer privileged by centrality, prominence or self-evident centrality, nor by the reported beliefs of users about genres, but by its status as reward or pay-off for investigators as they approximate to completing the hermeneutic circle (Askehave and Swales, 2001 p.210).

They also proposed two procedures for analysing genre, one which follows a traditional text-first or 'linguistic' approach, or an alternate context-first or 'ethnographic' approach (Figure 5 and Figure 6). It is the text driven procedure adapted in this study as an ethnographic element, which admittedly is a limitation of this study, as it goes beyond the time limits of this study.

Figure 5 Text driven procedure for genre analysis (linguistic approach)

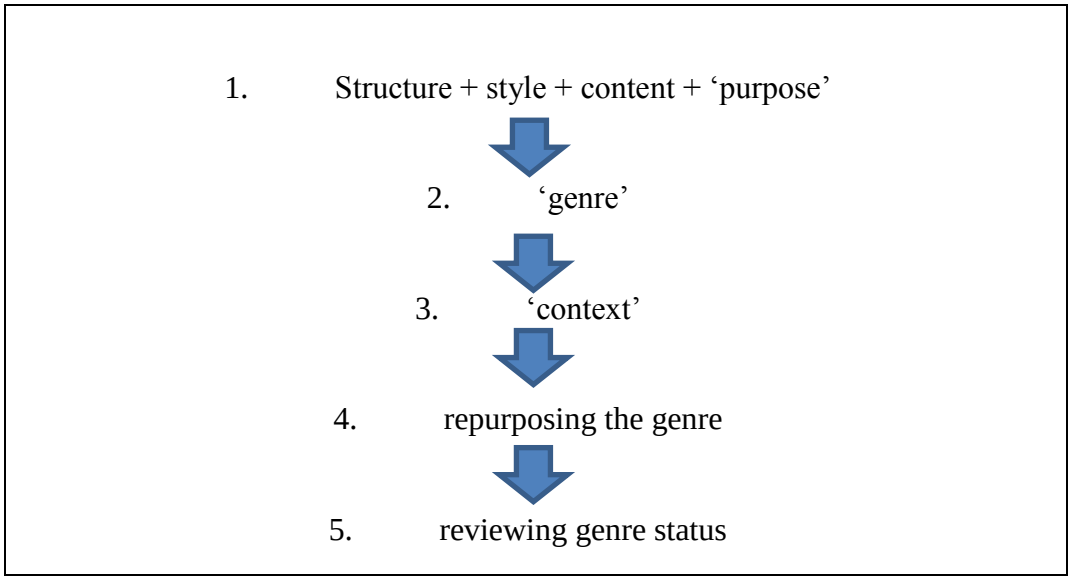
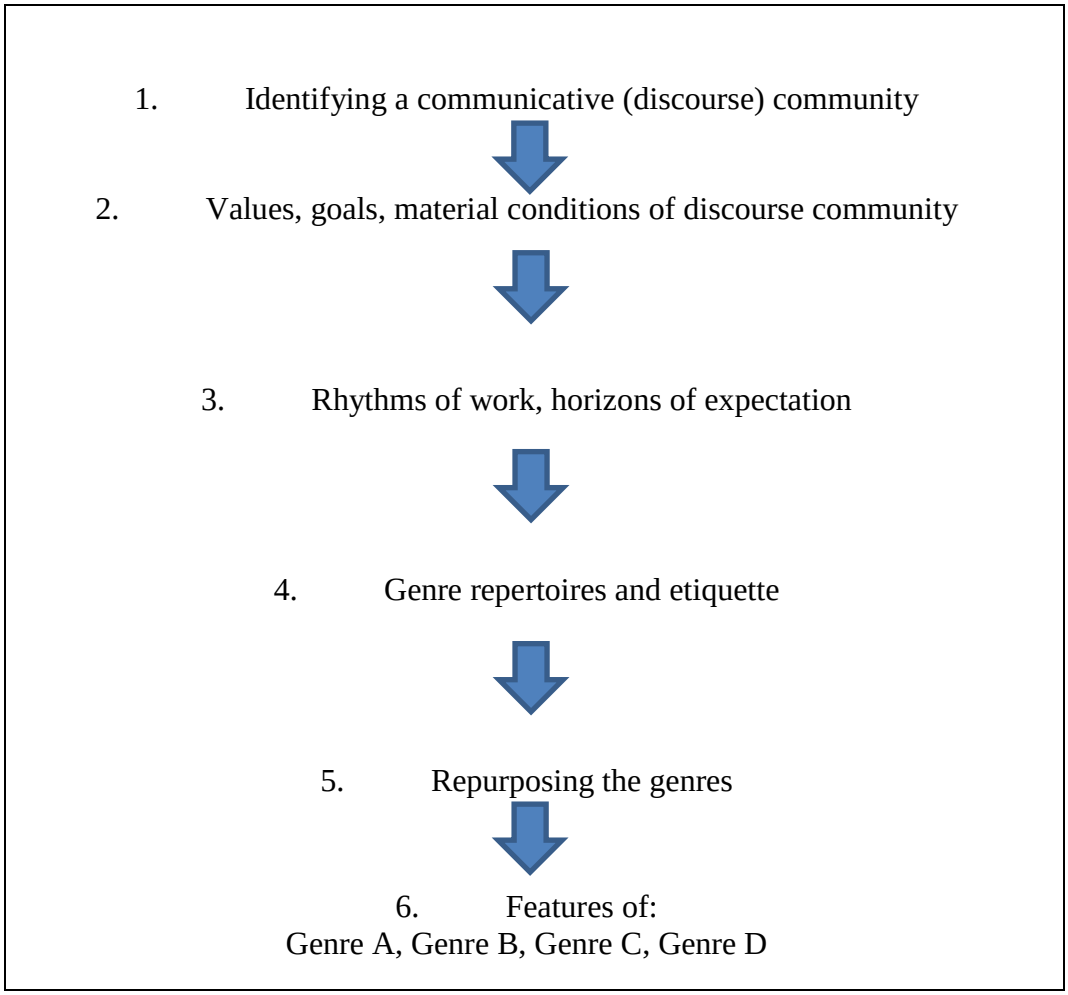


Figure 6 Context driven procedure for genre analysis (ethnographic approach)



Bhatia (1993) explains that the reasons why genres are most often highly structured and conventionalised communicative events is as a result of the long experience or training within the community that uses them. While that is arguably true for some, for novice lecturers familiarity with the genre can be explained by the years they have been sitting on the other side of the lecture hall, participating and listening to lectures. Furthermore, Bhatia (Ibid.) argues that the positioning of certain rhetorical elements or even expressions have special meanings that are only realised through a restricted number of genres. Previous studies on the lecture introductions have concurred that there is no preferred structure of the lecture introduction but rather a selection of optional rhetorical structures to choose from. Also, like other genres which can be exploited by so-called "expert" members of the community to achieve private intentions, it seems very likely that in lecture introductions, a lecturer can impose their personal (political, religious) beliefs by making the students aware of the content of their lectures in order to indoctrinate young students. However, referring back to the adapted communicative purpose criteria for genre identification by (Askehave and Swales, 2001), the broader understanding of the communicative purpose of the lecture introduction genre will be the focus of this study.

3.2.1 Academic discourse community

Most research on genre based studies has focused on providing students with models of how to behave in their adoptive discourse communities. It was Swales (1990) who defined the concept of discourse community as consisting of six defining characteristics. Firstly, it has a broadly agreed set of public common goals; second, it has mechanisms of intercommunication among its members; third, it uses its participatory mechanisms primarily

to provide information and feedback; fourth, it utilises and possesses one or more genres in the communicative furtherance of its aims; fifth, it has acquired some specific lexis and sixth, it has a threshold level of members with a suitable degree of relevant content and discoursal expertise. It is the lecture introduction genre, which I consider from a Bhatian perspective, to be a sub-genre of the academic lecture genre, used by the academic discourse community which is examined in this study.

Hyland (2009) sees academic discourse as referring to the ways of thinking and using language which exist in 'the academy', whereby the significance lies in the fact that language is used in complex social activities to educate students, demonstrate learning, disseminate ideas and construct knowledge. Borg (2003) highlights the fact that earlier references to the term 'discourse community' by Swales referred to written communication and it was not until 1998 that he differentiated between discourse communities and 'place discourse communities' which were united by written and spoken communication. How the community reproduces itself is considered to be a significant element, as whether novices learn how to behave through analysis and teaching of written texts or even apprenticeship has implications for the academic discourse community in particular. He also questions the idea of a generalised 'academic discourse community' as he claims that they may not have shared goals or genre. I do believe that the academic discourse community is a valid concept as the way this community communicates with each other can be seen through the different genres they share.

Flowerdew (2000) points out that research in academic literacy has emphasised the importance of discourse communities in shaping the generic competence of young scholars and that it means the participatory, negotiable nature of learning is not based on overt teaching. For undergraduate students the lecture genre is one which they need to master very

quickly, because as Johns (1988) puts forward an observation of my own, there are significant differences between the needs of graduate and undergraduate students. The lecture genre is usually just experienced by undergraduates who are required to concentrate on their reading, listening and question posing skills, with not much writing in the first years. This contrasts with postgraduates who focus a lot on their written and oral productive skills instead.

3.3 Genre and English for Specific Purposes

Genre analysis studies have been seen as operating within the three main traditions of English for Specific Purposes, Australian genre research and the New Rhetoric. (Hyon, 1996) sees the ESP and Australian genre research as informing English language teaching with insights into the linguistic features of written texts and how to teach it in the classroom, while the New Rhetoric as offering a wider perspective of the institutional contexts around academic and professional genres, to include the functions these genre serve. A summary of Hyon's (Ibid.) *Genre in the three traditions* can be seen in Table 11.

Table 11 Summary of Hyon's (1996) Genre in three different traditions

Genre tradition	**English for Specific Purposes**	**New Rhetoric**	**Australian Genre theories**
Genre theory	Genre as a tool for analysing written and spoken language for non-native students in academic and professional settings.	Genre defined by the action it is used to accomplished for L1 learners.	Staged, goal-oriented social processes, structural forms that cultures use in certain contexts to achieve various purposes.
Seminal work/ figure/s	John Swales' Create-A –Research-Article model.	Miller's 'Genre as Social Action'.	Michael Halliday's 'Systemic Functional Linguistics', Jim

			Martin et al.
Analysis	Texts defined by "communicative purposes". Move analysis on texts.	Ethnographic methods to describe texts.	SFL framework.
Contexts	English for Academic Purposes and English for Communicative Purposes class.	University and professional.	Primary and secondary school genres and adult education.
Goals	Teaching students the formal, staged qualities of genre.	Helping students succeed in academic and workplace texts.	Empowering students with linguistic resources for social success.
Instructional Frameworks	Cyclical move patterns used to teach writing programs at university.	Recent work and some teaching suggestions.	Teaching-Learning cycle for Sydney's Disadvantaged School Program.

This study takes an English for Specific Purposes (ESP) view of Genre Analysis which is an approach to text analysis that studies the regularities of structure that distinguishes one type of text or genre from another (Dudley-Evans and St. John, 1998). It does not seek to establish a means of classifying genres, but merely how a text realises its communicative purpose (Dudley-Evans, 1994a). Though genre-based teaching has mainly focused on writing genres, there is no reason why it would not help with teaching students to listen to lectures.

Paltridge and Starfield (2012) in the *Handbook of English for Specific Purposes* sees Genre in the work of ESP as referring to communicative events such as seminar presentations, university lectures and academic essays which are based largely on Swales' work on discourse structure and linguistics features of the research article. The teaching of academic writing to ESL graduate students and ESP teaching in general has benefited greatly from these studies. The discourse structure of a genre is typically described as made up of a series of

moves, each of which may contain one or more steps and is typically referred to as "move analysis".

3.4 Create a Research Space (CARS) model

The CARS (Create a Research Space) model on introductions of research articles created by John Swales (1990) is the most well-known example of "move analysis" of a genre. There is now substantial literature on the discourse structure and genre based studies on a variety of written and spoken academic genres, including this study which originates from this widely known move structure. The CARS move structure seen in Table 3.8 consists of three moves with a number of possible steps within them. This analysis of 48 Research Article Introductions came from three different disciplinary domains: 16 from hard sciences (physics, electronics and chemical engineering), 16 from the biology/medical field and 16 from social sciences. All of these are equal samples from different disciplinary domains which was hoped to reflect a common written academic genre. Subsequent research has however shown that there are disciplinary variations in the rhetorical moves of the introduction in the research article and within different sections of the research article (see Table 12 for some examples)

Table 12 Swales' (1990) CARS model for research article introductions

Move 1: Establishing a Territory
Step 1: Claiming centrality, and/or
Step 2: Making topic generalisation(s), and/or
Step 3: Reviewing items of previous research
Move 2: Establishing a niche

Step1A: Counter-claiming, or
Step1B: Indicating a gap, or
Step 1C: Question-raising, or
Step 1D: Continuing a tradition
Move 3: Occupying a niche
Step 1A: Outlining purposes, or
Step 1B: Announcing present research
Step 2: Announcing principle findings
Step 3: Indicating RA structure

The CARS model has been widely studied since its first publication and the wealth of research on it has not only validated the 3-move structure he proposed, but also revealed its recursive nature and its varied realisations in research articles across disciplines (Holmes, 1997) and different parts of the research article, for example abstracts (Anderson and Maclean, 1997, Martín, 2003, Cross and Oppenheim, 2006), research article results (Brett, 1994, Williams, 1999, Ruiying and Allison, 2003, Bruce, 2009), the research article methods section (Bruce, 2008) and also structural and linguistic evolution about medical research articles (Li and Ge, 2009a) to name a few.

3.5 Corpus based studies in genre analysis

A main criticism of corpus based research is that the corpus selected is only as accurate and representative as the sample of language used. The main benefit of using corpora in ESP studies is that it has provided a greater level of reliability in the number of texts analysed about genre-specific language. According to (Flowerdew, 2005) such analyses apply bottom-up rather than top-down methodologies and they do not consider the socio-cultural context as

they deal with decontextualized corpus data which counteracts the main criticisms of corpus based studies. An overview of corpus studies in genre analysis can be seen in Table 13. From briefly looking at the overview it is evident that most studies examined the rhetorical structure of genres but only a few have looked at phraseology and lexis. As mentioned previously, this study will examine the rhetorical structure of the lecture introduction genre through genre analysis and then the lexico-grammatical structures through corpus linguistic analysis.

Table 13 Overview of corpus studies in Genre Analysis

Author	Date	Genre	Features	Corpus	Discipline
Holmes	1997	Research Article Discussion	Rhetorical structure	30 texts	Social Science: History, Political Science, Sociology
Gledhill	2000	Research Article Introduction	Phraseology	150 texts (500,000 words)	Cancer Research
Upton and Connor	2001	Job application letter	Cultural differences American, Finnish and Belgium	Indianapolis Business Learner Corpus 153 letters	Business
Henry and Roseberry	2001	Job application letter	Identify moves, strategies	40 letters	Business
Flowerdew and Dudley-Evans	2002	Editorial letters to international journal contributors	Rhetorical structure, Word frequency	53 texts	Applied Linguistics
Dos Santos	2002	Business letters of negotiation	Rhetorical structure	117 texts	Business
Upton	2002	Direct mail letter	Rhetorical structure	242 texts 146,693 words	Business
Martín	2003	Research Article Abstracts	Rhetorical structure	160 texts	Phonetics, Experimental psychology, Experimental

					social sciences
Groom	2005	Research Article, Book Review	Phraseology	3.1 million History RA, 3.2 million History book review, 4 million Literary Criticism RA, 1 million Literary Criticism book review	History Literary Criticism
Hyatt	2005	Master of Education Dissertations	Feedback	60 feedback texts	Educational studies
Ding	2007	Personal statement	Rhetorical structure Word frequency	30 texts	Medicine, Dentistry
Bruce	2008	Methods sections of research articles	Cognitive genre model	60 texts 28,612 words 29,148 words	Physical Science Social Science
Li and Ge	2009	Research article	Rhetorical structure, Linguistic features (verb tense, pronouns)	50 texts	Medicine
Wulff et al.	2009	Conference discussion session	Patterns, Laughter	John Swales Conference Corpus	Applied Linguistics

The merits of combining the two approaches of genre and the corpus based approach to text analysis are also supported by (Gledhill 2000, p.116):

The attraction of a combined approach to both genre and corpus analysis lies in the potential for a corpus to reveal recurrent patterns across a representative sample of texts. The genre approach in turn allows us to nuance the often monolithic descriptions that may emerge

from corpus work, by offering a contextual, ethnographic basis for the construction of a textual corpus as well as a view of text as a series of choices, ebbing from one style to the next.

His study analysed the distribution and collocational behaviour of idioms and lexical items in different sections of the academic research article and he argued that the analysis of grammatical words is an efficient way of arriving at a description of the most typical expressions in the corpus. His corpus of cancer research articles was split into sections: Title, Abstract, Introduction, Methods, Results and Discussion and used the Wordsmith Tools' *Keyword* program to compare frequency lists from the corpus and to provide a list of frequent words that were more significantly frequent in one section than in the rest of the corpus. This enabled a principled approach to deciding which grammatical words to analyse. Salient items were listed as typical of the rhetorical section rather than of the corpus as a whole. His examination of the pharmaceutical sciences corpus points to lexico-grammatical correspondences that are particular to different sections of the cancer research article genre.

This integration of approaches to text analysis is also supported by Flowerdew (2005) who reviewed corpus studies that rely on a genre approach for their studies. One argument put forward against a sole corpus-based methodology for the analysis of text is that it does not take into account the contextual features of the text. Hunston (2002 cited in Flowerdew 2005) also sees the absence of a visual and social context for the interpretation of concordance lines as one of the most serious drawbacks of using corpus analysis. This lack of contextual features is particularly problematic for the corpus analyst when dealing with the pragmatic features of text, which may only be recoverable from the socio-cultural context (Flowerdew 2005). The genre approach to text analysis has the context of a text that is central to its analysis: the relationship between participants and the mode of the text (written or spoken)

informs the reader/listener of the communicative functions contained in the text which would dispel this argument.

Furthermore, Flowerdew (2005) highlights that the most common tool for analysing corpora is concordancing software for displaying the key-word-in-context which limits the analysis to a bottom–up type of investigation of the corpus data. This is at odds with the more top–down kind of analysis that is common to the Swalesian genre approach to text analysis. As in genre analysis, the starting point is with the macrostructure of the text with a focus on larger units of text rather than sentence-level, lexico-grammatical patterning. Flowerdew (Ibid.) gives examples of studies which devised tagging systems for coding the generic move structures of the texts in their corpus (see Thompson, 2000; Upton, 2002; see Connor et al., 2002; Upton & Connor, 2001). These studies can counter the argument of the sole use of the bottom–up approach of corpus linguistics, by also adopting the top-down approach of genre analysis, by working with whole texts instead of random samples which are representative of the target genre or language that is intended for study.

As tagging functions can only be done manually and are time consuming, this can explain the low numbers of these types of studies. Also, only genres which exhibit a fairly formulaic, conventionalized rhetorical structure can be easily tagged and texts comprising mixed genres or exhibiting a wide range of move structures or embedding of move structures, as it would probably be too unwieldy to implement (Flowerdew, 2005). With a spoken genre like the academic lecture, this could be problematic, as a communicative function is rarely realised in formulaic expressions as often as it would be in a written genre.

In addition to studies that tag move structures, Flowerdew (2005) cites Flowerdew and Dudley-Evans' (2002) study which did not employ tagging systems but used corpus

methodologies in the form of frequency lists and concordancing which were used to extract interpersonal features within various move structures. For example, Flowerdew and Dudley-Evans (Ibid.) found that a word frequency count showed *I* to be the second most frequent lexical item in the letters and a concordance of this item revealed that it was most often used in the construction *I think you* + modal verb to provide recommendations.

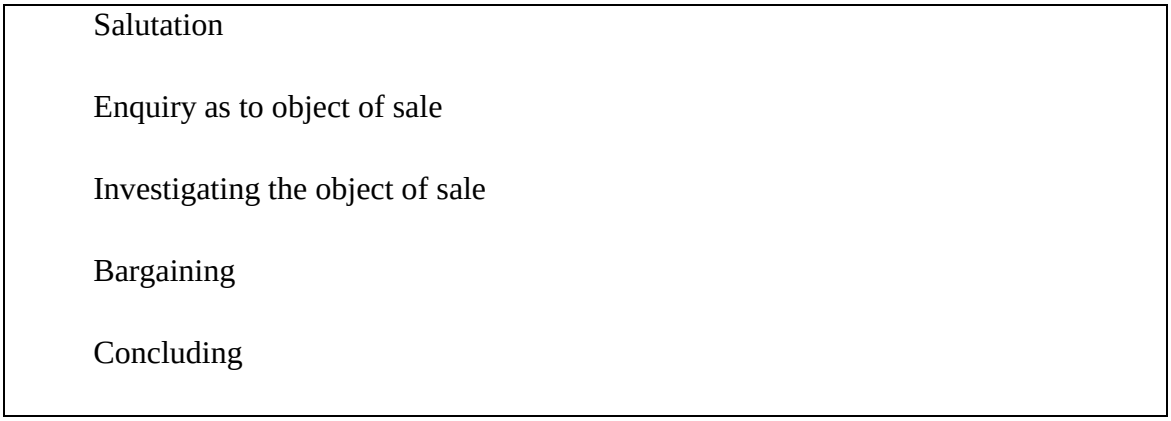
Another study which adopts a methodological approach close to that used in this study is by Durrant and Mathews-AydInlI (2011) who conducted a function-first approach to identifying formulaic language in academic writing. Using 96 essays from the British Academic Written English Corpus, they annotated their corpus first for different moves and focused on a particular move which exhibited a high usage in their corpus of examined formulaic language, which is found more in written prose than in spoken language. They found that within a function there lies a variety of linguistic realisations and that conclusions made should be heeded with caution in terms of demonstrating how the functions are realised.

It is with these two approaches in mind that this study examines the language used by lecturers in their lecture introductions. The data is obtained from a corpus of lectures and it is further analysed for its discourse structure and realisations in a genre analysis tradition; the lecture introduction functions are hand tagged and corpus tools are used to provide complimentary quantitative results.

3.6 Genre analysis on spoken academic genres

Early work in genre analysis on spoken language originated from the observation of service encounters. In 1957 Mitchell identified five stages in market and shop transactions in Cyrenaica, as seen in Figure 7 (McCarthy, 1998).

Figure 7 Mitchell's (1957) stages in market and shop transactions in Cyrenaica



This model was then developed further by Hasan (1978) to include obligatory and optional elements which then was further developed by Ventola (1983) using a flow-chart representation to allow for variations of stages as people do not always purchase goods in service encounter transactions and there are variations where people forget to buy something. This is the true nature of real life and spoken language, including lecture introductions, which is definitely not 'linear'.

Hyland (2009) claims research into academic discourse has grown immensely since the mid-1960s when Huddleston, Hudson and Winter conducted a British Government study into the linguistic properties of Scientific English. For the first time this study looked at the use of real language instead of relying on intuition, as was the case in the past. While initial work was on written texts, after years of neglect, research on how academic speech differs from, and works together with, writing genres was conducted and there is now awareness that speaking and listening are collaborative achievements which make heavy demands on researchers, teachers and students alike, especially non-native English speakers who are themselves lecturers who are required to lecture and present conference papers.

As with spoken genre analysis on work related genres, research on spoken academic genres remains rather limited. Two well-known studies were conducted by Dubois (1980) and Shalom (1993). Dubois (1980) examined biomedical slide presentations as a genre and investigated poster sessions at biomedical meetings. Dubois's (1980) structure of Biomedical Conference Presentation can be seen in Figure 8. The Biomedical Conference Presentation is seen to be divided into three main parts being an introduction, body (which was claimed to consist of one or more episodes) and a termination.

Figure 8 Dubois's (1980) structure of Biomedical Conference Presentation

Introduction	A. Listener Orientation (1. To chairperson, 2.To audience, 3. To projectionist) B. Content Orientation (1. Non-technical, 2.Technical, 2a.Subject qualification, 2b. Amplification, 2c. Pre-hypothesis, 2d. Hypothesis, 2d.Implications)
Body (one or more episodes)	A. Situation B. Event C. Commentary
Termination	A. Content Orientation B. Listener Orientation

Shalom (1993) examined the plenary lecture discussion and poster discussion session at an ecology academic conference. The former is a research process genre that is established and the latter is one that is continually evolving. Her analysis involved both written and spoken communication and also acknowledged the use of visuals of this genre. The use of visuals in academic lectures also is considered important in delivering lecture introductions as lecturers have been found to show reference to visuals as will be discussed in Chapter 5 (section 5.5.7).

Shalom's (1993, p.41) study of the plenary lecture discussions also was seen as having three main parts : 1) The opening phase (chair starts the meeting), 2) Discussion phase (chair elicits questions or comments, nominates delegate, delegate asks speaker question, speaker replies, delegate may comment and may ask supplementary question, speaker replies, etc.; another delegate might come in on the topic, either asking a question or making a comment; the chair, in the background or foreground, makes sure the conversation continues, clarifying procedure as necessary, nominating speakers, and possibly getting directly involved in the discussion, 3) Closing phase: Chair clarifies procedure which includes making conference announcements and closes the meeting.

Both Dubois (1980) and Shalom's (1993) study show that these spoken academic genres are considered to contain introductions, according to the former or openings, according to the latter. My own study on lecture introductions agrees with Dubois's (1980) and sees the lecturer as communicating sub-functions in relating to listener orientation and content orientation. Interestingly, Dubois (1980) claims that half of the speeches in her corpus contained listener orientation, which is in my opinion is attributed to the nature of this genre. In contrast to the lecture introduction, 37% of the sub-functions found in the Lecture Introduction Corpus are categorised as Listener Orientation sub-functions (see Chapter 6 for further details).

More recently, there has been some work on Peer Seminars (Aguilar, 2004), Conference Presentation Introductions (Rowley-Jolivet and Carter-Thomas, 2005), Student Architecture Presentations (Morton, 2009b) and discussion sections from an applied linguistics conference (Wulff et al., 2009). Table 14 presents an overview of studies on spoken academic genres.

Table 14 Overview of the studies on spoken academic genres

Author	Date	Genre	Features	Corpus	Discipline
Dubois	1980	Conference Slide Presentation	Rhetorical Structure	Not known	Biology
Dubois	1985	Poster session	Not known	Not known	Not known
Shalom	1993	Plenary lecture discussion, Poster discussion session	Rhetorical Structure	2 sessions of plenary lecture discussion	Interdisciplinary-Biology Chemistry Ecology
Weissberg	1993	Graduate Seminar	Observation of features, Interviews	10 graduate seminar presentations	Applied life science: Agronomy, Animal Science
Thompson	1994	Lecture Introductions	Rhetorical Structure	18 lecture introductions	Applied linguistics, Engineering, Medicine
Young	1994	Lecture	Rhetorical Structure (Phases)	7 lectures	Not known
Aguilar	2004	Peer Seminar	Rhetorical structure	4 seminars	Engineering
Rowley-Jolivet and Carter-Thomas	2005	Conference Presentation Introductions	Rhetorical structure, Use of pronouns	44 conference presentations, 15,639 words	Geology Medicine Physics
Morton	2009	Student Architecture Presentations	Rhetorical strategies	3 student presentations	Architecture
Wulff et al.	2009	Conference Discussion session	Patterns, Laughter	John Swales Conference Corpus	Applied Linguistics
Lee	2009	Lecture Introductions	Rhetorical structure, Impact on class size	10 lecture introductions from MICASE	Mixed disciplines
Deroey, K. L. B., & Taverniers, M	2011	Lecture	Rhetorical structure	12 lectures 100,000 tokens from BASE	Mixed disciplines
Cheng	2012	Lecture Closings	Rhetorical structure, Personal pronouns,	56 lecture closings, 7409 words from	Mixed disciplines

			Impact on class size	MICASE	
Shamsudin and Ebrahimi	2012	Lecture Introductions	Rhetorical structure	6 lecture introductions From MESEC (Malaysian Engineering Spoken English Corpus)	Engineering

3.7 Genre research on lecture introductions

The genre examined in this study, the lecture introduction, is significant because it offers an opportunity for the lecturer to establish an interpretive framework for the audience to use as they listen to the rest of the lecture (Thompson, 1994). The lack of research done on the lecture as a genre is surprising given that listening to lectures can be considered to consume a large part of what students do at university. Previous work developed that is central to this research is the model of generic moves of lecture introductions by Thompson (1994). Although her work only examined 18 lectures, it is the first on Genre Analysis on lectures which focuses on the introduction section. Thompson (1994) found that introductions to academic lectures contained two discrete functions, with three and four corresponding sub functions. These functions were identified by lexico-grammatical features, as can be seen in Table 15.

Table 15 Thompson's (1994) Modified CARS model for lecture introductions

Function	**Set Up Lecture Framework** (Lecture as a textual object, giving information about topic, scope, structure and aims of lecture)
Sub-function	**Announce Topic**

	E.g. What I'm going to do in this session is….
Sub-function	**Indicate Scope** e.g. I'm not going to dwell very long on this side of things
Sub-function	**Outline Scope** e.g. I move on to
Sub-function	**Present Aims** E.g. I want to talk a bit about the problems of measurement because...

Function	**Putting Topic in Context** (Establishes a context for the content of the lecture by indicating the relevance and importance of topic and relating it to what the audience knows)
Sub-function	**Show Importance/relevance of topic** e.g. The implications of this are enormous
Sub-function	**Relate "New" to "Given"** e.g. We've all seen slides like this before
Sub-function	**Refer to Earlier Lectures** e.g. If you cast your mind back to Friday and the lecture I gave

Thompson (1994) claims that in contrast to other academic genres, lecture introductions do not need to have a preferred sequence of functional elements. We could say that this variation is expected in spoken genres and that as a pedagogical process genre which is targeted at the lecturer's academic inferiors, as such, the lecturer is not under great pressure to exhibit control over a conventionalised rhetorical structure. In my opinion, the fact remains that it is an academic genre, one which every student will have to master, and even though the structure of a lecture cannot be entirely mapped out as adhering to a common rhetorical

structure, examining a larger collection of lecture introductions across a range of disciplines would unearth some interesting results about what is commonly said in lecture introductions.

Another study on lecture introduction by Lee (2009) investigated the impact of class size on the rhetorical move structures and lexico-grammatical features of academic lecture introductions from MICASE. His data consists of 5 small-class lectures which he calls SCLs and 5 large-class lectures called LCL. He used four criteria to select the two corpora which are:

1) The academic role of the lecturer. Only lecturers who had "senior faculty" or "associate professors or above".

2) The speech event type. Lecture.

3) The academic status of the students. Target audience were undergraduate students.

4) Interactivity. Only "highly monologic" lectures where only the lecturer monopolizes the floor with occasional questions or comments.

The method of analysis followed in Lee's (2009) study was the Swalesian genre-based approach, whereby an identified genre has recurrent generic features, or moves with steps and these rhetorical movements are realised by lexico-grammatical features. Lee also used Thompson's (1994) study inspired by Swale's (1990) framework to analyse lecture introductions. However, where Thompson uses the terms 'function' and 'sub-function', Lee maintains the Swalesian 'moves' and 'steps'. From this data, he found three emerging moves, as seen in Table 16.

Table 16 Lee's (2009) comparison of the rhetorical structures of small- and large-class lecture introductions

	Small-class lectures	Large-class lectures
Move 1: Warming up		
Step 1: Making a digression	Semi-obligatory	Optional
Step 2: Housekeeping	Optional	Obligatory
Step 3: Looking ahead	Optional	Obligatory
Move 2: Setting up the lecture framework	Obligatory	Obligatory
Step 1: Announcing the topic	Optional	Optional
Step 2: Indicating the scope	Optional	Optional
Step 3: Outlining the structure	Optional	Optional
Step 4: Presenting the aims		
Move 3: Putting the topic into context		
Step 1: Showing the importance of the topic	Optional	Optional
Step 2: Relating "new" to "given"	Optional	Optional
Step 3: Referring to earlier lectures	Obligatory	Obligatory

Lee's (2009) study has similarities to the present one as it investigates the rhetorical moves found in academic lecture introductions. However, his corpus is American English, MICASE and investigates the impact of class size. This study found three emerging 'moves' and made claims to which moves and steps were obligatory, optional or semi-obligatory for the different class sizes. However, a main criticism is that I think it would need more than the 10 lectures to make a substantive claim.

The 'Warming up' move is the non-content lecture function which was ignored by Thompson's (1994) study. The label 'Warming up' suggests that the function will always come prior to the other two which does not necessarily happen in lectures, as more lecture data can prove. Lee contributes the usage of 'Move 1' and the corresponding steps to the role of the senior lecturer that needs to impart important information due to their level of experience and also adds that this 'move' is used to signal that the lecturers care about the

students' learning. I agree that this function adds a more human and personalised touch to a lecture, rather than an automated reading aloud of information.

He further claims that 'Move 2' is obligatory because its use "is to articulate to the audience the main topic of the lecture and provide a preview of the ensuing talk" (Lee 2009, p.48). This, although in principle seems to be true, might not always happen as the analysis of more data can show. Interestingly, he claims that Move 2 Step 1: Announcing the topic occurs nearly all the time in SCL and more than one time in LCL. In LCLs, Lee explains that as some students arrive late for the lecture, the lecturer feels the need to announce the topic again.

A more recent study on lecture introductions by Shamsudin and Ebrahimi (2013) investigating the lecture introduction moves in a Malaysian Engineering corpus found that Malaysian lecturers used the same three moves as Lee's (2009) study which are *Warming up, Setting up the lecture framework* and *Putting the topic in context*. As will be discussed further in Chapter 5 of my study, Shamsudin and Ebrahimi's (2013) study added two steps namely *Greeting* and *Reciting Prayers* in their Move 1, the *Warming up* move. For their Move 2; the *Setting up the lecture framework* move, they have added *Looking ahead* step and *Announcing the start of the lecture* step. For their Move 3; Putting topic in context move, they have added *Reviewing earlier lectures* step. These additional steps are similar to those added to my framework, as will be discussed in detail in Chapter 5.

Another related study on the lecture genre, though on the opposite side of the lecture introduction genre is the study by Cheng (2012) on lecture closings. By acknowledging the closing of a lecture as a genre in its own right, this study gives support to the notion that lecture introductions is a genre too, unlike the study by Young (1994) which sees lectures as a

series of recurring lecture ‘phases’ based on language choices of discourse structuring, conclusion, evaluation, content, interaction and examples. In rebuking the idea of recurrent phases, it is highly unlikely that a conclusion phase would be found in the introduction. As will be explored further in this study, there are unique communicative functions that lecturers use in the lecture introduction.

3.8 Determination of lecture introduction in this study

Having established that the lecture introduction is a sub-genre of the lecture introduction and that the communicative purpose is for a lecturer to inform students regarding the structure of the main lecture and other course issues and for the students to obtain information regarding the main lecture and course, how the lecture introduction is determined is not as straightforward as its written Research Article Introduction counterpart.

Thompson (1994) claims that the end of a lecture introduction is indicated by the lowering of tone, also known elsewhere as ‘phonological paragraph’ or ‘paratone’. The term, which acts in a similar way as paragraphs in writing, was coined by Yule (1980 p.33) “as a high pitch onset and low pitch close, followed by a long pause, is described as a major paratone.” In examining my own data, I found that this is not the case for all lectures, as it was difficult to use that criteria alone to distinguish between the lecture introduction and the main body in the lecture transcripts. Therefore, viewings of video recordings had to be obtained to mitigate the problem.

Thompson’s subsequent work on spoken language which focused on the identification of text structuring discourse can be seen as helpful in this matter. According to Thompson

(2003), text structuring discourse and intonation are used as a means of indicating lecture organization and the structuring of meta-discourse types, as can be seen in Figure 8.

Figure 9 Thompson's (2003) Text structuring discourse features

a) Indicating 'global organization of talk' - global content markers (e.g. refer to content), topic content markers or sub topic content markers (e.g. introduce or conclude topic).
b) Global structuring markers - (e.g. sequencing markers), topic structuring markers, sub-topic structuring markers.
c) Metastatements = Global metastatements, topic metastatements and subtopic metastatements (e.g. what speaker will do or has done in talk but do not refer to the content).

In their study of conference introductions, Rowley-Jolivet and Carter-Thomas (2005 p.48) also claimed that the cut-off point between the introductory section was not easy to do "as speakers rarely provide the superstructure; clues that are materialised in the RA or recommended by EAP listening skills materials". The two clues used in their study were:

1) Textual clues in the transcript (Frame markers, for example: *Well, So, OK*, Tense-shifts and Pseudo-clefts (for example: *So what we decided to do was*…)
2) Visual clues on the video recording (titles on the visuals or a shift in the type of visuals shown often clearly indicated the beginning of a new section).

This study uses a combination of all three items from previous studies to indicate the end of the lecture introduction: text structuring discourse from the transcripts and visual clues and phonological paragraph from video recordings.

3.9 A modified Lecture Introduction Framework suggested by the present study

Situating the study in genre analysis, analysing the generic structure for lecture introductions is one of the main aims of this study, as outlined in the introduction. According to (Upton and Cohen, 2009), Swales' (1981, 1990) 'move analysis' is a top-down approach that focuses on meaning and ideas which analyse the discourse structure of texts from a genre. A typical move analysis begins with the development of an analytical framework, followed by the identification and description of move types that occur in the genre which can serve the target genre. Research has shown that patterns of move types of genres differ. While Swales' (1990) CARS model moves in a linear sequence from the more general world of which the research world operates to the more particular one of the present paper, other studies like that of (Hopkins and Dudley-Evans, 1988), for example, have identified 'cyclical patterns' in other academic genres. Therefore, this study investigates the move pattern of the genre, alongside identifying the discourse structure.

3.9.1 The term 'Move' or 'Function'?

The Swales (1990) CARS model, which is considered as the seminal move analysis on research article introductions used the term 'move' to represent a stretch of text which serves a particular communicative function. 'Moves' are then realised by different 'Steps' which can be either obligatory or optional. It is important to highlight that the research article is a written genre and one that has had a lot of thought and editing put into it which is not possible when delivering spoken genres like lectures.

Thompson's (1994) study on lecture introductions used the term 'Function' to refer to the rhetorical functions and 'Sub-function' for the realisation of the rhetorical function of lecture introductions. The functions in Thompson's (Ibid.) study were identified according to the overall goals and communicative aims of the lecturer which my study builds on.

A decision was made in this study to adopt the terms 'Function' and 'Sub-Function' for several reasons. The first relates to this study building upon the previous study of Thompson (1994). While no explicit explanation is given as to why her study has not maintained the Swalesian 'Moves' and 'Steps', labelling the main rhetorical functions as functions and its corresponding realisations as sub-functions is also easier for the analyst to process. Second is the reason that 'Moves' and 'Steps' suggest obligatory and optional elements. This is as in Move 1 of Swales' (1990) CARS model, the first two steps that are considered optional (*claiming centrality* and *making topic generalizations*) while the last one (*reviewing items of previous research*) was obligatory. In addition to that, in keeping with the previous move analysis on genre, if we are to investigate a genre and make claims that if a function is found in 100% of all genre texts to be an obligatory move and less than 100% as optional (Lieungnapar and Todd, 2011), then the lecture introduction genre, being of spoken language, does not seem to exhibit this in my own data, as will be discussed further in Chapter 6 of the genre analysis results.

3.9.2 Criteria for the identification of functions

The functions adopted in this study are pedagogically motivated, as they are hoped to be easily identified by the expert lecturers who perform this genre and also helpful to the novice

students to distinguish what information units there are in a lecture introduction. The three criteria of identifying functions are presented in the following preferred order:

1) The propositional meaning
2) Linguistic signals
3) The environment of the lecture

The meaning conveyed is paramount in assigning a function to a stretch of text. As it is generally believed that the meaning of language is culturally and socially bound, the analyst's experience of attending Higher Education in British universities is hoped to be sufficient at assigning what the lecturer hopes to be understood by a typical undergraduate student at a British university.

Whereby the rhetorical function was unclear or difficult to decode, the linguistic signals were used to decipher relations between different parts of the text. Thompson (1994) outlines different linguistic signals for the different functions which have been a useful guide for further identifying sub-functions which are discussed further in Chapter 5. However, not all recommended linguistic signals match the data in the present study and closer corpus linguistic analysis provided a richer description of the sub-functions, as demonstrated in Chapter 7.

Finally, the video recordings, as mentioned previously, helped with setting the scene and to understand the lecture, but also provided the visual aspects needed for deciphering the lecture transcripts. The results of a preliminary pilot data analysis has led to the proposed Lecture Introduction Framework, as can be seen in Figure 9 (see next section).

3.9.3 The Lecture Introduction Framework proposed in this study

Analysis of the data confirms earlier pilot work (see section 4.3) which suggests that there are two main orientations of which lecturers to convey the communicative purposes of university lecture introductions: *Content Orientation* and *Listener Orientation*, taken from the study of Dubois (1980) . The Listener Orientation function's sub-functions have been identified and added by the researcher whilst the sub-functions of the Content Orientation function adopts Thompson's (1994) lecture introduction framework, and also additional ones identified. Figure 9 summarises the emerging rhetorical functions found in the Lecture Introduction Corpus proposed for this study.

As this study builds upon Thompson's (1994) genre study of Lecture Introductions, her two main functions - *Set Up Lecture Framework function* and *Putting Topic in Context function* are also used in my own analysis. Thompson (1994) defines the *Set Up Lecture Framework function* as orientating the lecture-as-object towards the audience. She claims that a dominant feature of the lecturer is the function signalled by *I* as the subject and is further realised by four sub-functions: *Announce Topic, Indicate Scope, Outline Scope* and *Present Aims*. However, this study treats *Announce Topic* and *Present Aims* as the same sub-function, as it is rather similar and will be refered to in this thesis as *Announce Topic sub-function.*

The other main function, *Putting Topic in Context function*, which according to Thompson (1994) deals with lecture-as-content, is further realised by three sub-functions: *Show Importance, Refer to Earlier Lecture* and *Relate New to Given*. With further analysis of the data, I have added *Recap Earlier Lecture* and *Refer to Future Lecture* sub-functions to this main function.

A more recent study related to Lecture Introductions by Lee (2009) also identified three main 'moves', two of which are similar to Thompson (1994) and my own *Listener Orientation function*, with an additional *Warming Up move*. Lee's (2009) study chose to label the rhetorical functions as 'moves' and 'steps' and sees these as obligatory or optional. *The Warming Up move* is realised by three further steps: *Making a digression*, *Housekeeping*, and *Looking Ahead*. *The Warming Up Move* is similar to my own *Listener Orientation function*, but is realised by seven sub-functions: *Greeting*, *Announcement*, *Check Comprehension*, *Check Comprehension Feedback*, *Refer to Handout* and *Refer to Visual*.

Figure 10 The Lecture Introduction Framework proposed for this study

Orientation	**Lecture content orientation**		**Listener orientation**
Main function	**Set Up Lecture Framework function (S U L)**	**Putting Topic in Context function (P T I C)**	Listener Orientation (L O)
Sub-function	**Announce Topic**	**Show Importance**	Greeting
Sub-function	**Indicate Scope**	**Relate NEW to GIVEN**	Announcement
Sub-function	**Outline Scope**	**Refer to Earlier Lectures**	Introduce Oneself
Sub-function		Recap Earlier Lectures	Refer to Handout
Sub-function		Refer to Future Lectures	Check Comprehension
Sub-function			Check Comprehension Feedback
Sub-function			Refer to Visuals

3.10 Chapter summary

In this chapter I survey the literature on spoken academic genres and research on lecture as a genre, and ones which combine corpus based studies too. I discuss the previous study by Thompson (1994) which introduced a Lecture Introduction framework, which my study uses and builds on to a larger scale, with additional use of corpus linguistics tools for analysis. In

this study, the Lecture Introduction is defined as a sub-genre of the lecture genre in which its communicative purpose is for a lecturer to tell/signal/notify students regarding the structure of the main lecture and other course issues and for the students to obtain information regarding the main lecture and course. The actual identification of the lecture introduction will use both transcripts and video recordings to establish the lecture introduction boundary. Finally, the Lecture Introduction Framework is introduced and the sub-functions briefly explained.

I now turn to a description of the corpus and methodology employed in this study in Chapter 4.

CHAPTER 4 CORPUS COMPILATION & METHODOLOGY

4.1 Introduction

This chapter discusses the variables taken into consideration in constructing the Lecture Introduction Corpus. Following that is the discussion of issues faced in compiling the Lecture Introduction Corpus.

4.2 Construction of the Lecture Introduction Corpus

This research used recorded lectures from The British Academic Spoken English Corpus (BASE). It is a record of the speech of university lecturers and students at the turn of the 21st century and consists of 160 lectures and 39 seminars recorded in a variety of university departments. It contains 1,644,942 tokens in total (lectures and seminars). Holdings are distributed across four broad disciplinary groups, each represented by 40 lectures and 10 seminars. These groups are: Arts and Humanities, Life Sciences, Physical Sciences and Social Sciences.

The decision was made to use this corpus because it contains a large number of lectures and permission had already been obtained for it to be used to undertake academic research. Having the transcripts readily available online and a selection of accessible video recordings ensured the quality of the data as it was produced by highly trained professionals from the University of Reading and the University of Warwick under the directorship of Hilary Nesi and Paul Thompson. Corpus development was assisted by funding from BALEP, EURALEX, the British Academy and the Arts and Humanities Research Council. It has also been used by

other researchers in doctoral studies and published journal articles which demonstrates the viability of the corpus data for research purposes.

The BASE corpus contains a mixture of different spoken academic genres of lectures and seminars. A total of 89 lectures were selected from the BASE corpus to be analysed. These lectures were selected because the video recordings to accompany the transcripts were available, which is necessary when defining the Lecture Introduction genre, as discussed in Chapter 3. From the 89 BASE lectures, another corpus was created, consisting only of lecture introductions. Initial analysis of the lecture transcripts proved that it was problematic to distinguish between the boundary of a lecture using Sinclair & Coulthard's (1975) (cited in Thompson, 1994, p.175) phonological criteria which is a lengthy pause usually followed by a boundary marker such as "right" or "ok" delivered with a high falling tone. This is because by watching the video recordings and following the transcripts, the boundary was considerably clearer to determine by examining the body language, eye gaze of the lecturer and the use of visuals used as sometimes the anticipated pause is briefer than expected and a boundary marker is not always used.

Following the BASE corpus division of 4 disciplinary domains, the breakdown of lectures with available videos is as Figure 11. The details of video recordings can be seen in Appendix III.

Figure 11 Total video recordings of lectures in Lecture Introduction Corpus

Discipline	**Total**	**Tokens**
Social Science (SS)	20 lectures	17,449
Physical Science (PS)	14 lectures	4,663
Arts and Humanities (AH)	25 lectures	11,604

Life Science (LS)	30 lectures	11,589
Total	89 lectures	45,305

Despite the unequal distribution of lectures for each discipline, what is hoped to be achieved is strength and validity of results through analysing as many lectures as possible.

4.3 The pilot study and approach to analysis of functions

Earlier attempts to analyse lecture introduction functions using just the transcripts from the BASE corpus was very difficult. This is mainly due to the nature of spoken language in which its interpretation does not only involve the spoken word, but also prosody, combined with non-verbal communication like the lecturers' body language, the use of multimedia in lectures and also feedback from students which all happen while the lecturer is delivering the lecture.

Therefore, it was decided that the pilot study of the first twenty lecture transcripts from the BASE corpus also involved the viewing of its corresponding video recordings. The first five lectures from the database were selected from each discipline and the lecture speech was analysed according to the functions identified. The identification of functions in speech is not as straightforward as in written discourse as there are various problems encountered (see section 4.6 Analysis challenges). The framework was then refined by further continuous analysis of the remaining lecture transcripts and viewing of its video recording. Only functions occurring at least 10 times in the corpus were decided to be included in the framework, as discussed further in Chapter 5.

Following the research of Swales' (1990) CARS model, the identification of move structures has been a combination of a 'bottom up' approach where researcher distinguishes moves on the basis of linguistic signals and a 'top down' approach, where it is on the basis of content. In analysing research article abstracts, Anderson and Maclean (1997) have used both 'bottom up' and 'top down' approaches, whereby moves are identified by certain linguistic realisations, such as tense and certain nouns and verbs. At the same time they rely on an intuitive interpretation of content which points to certain linguistic realisations. This results in a recursive method of identification of rhetorical moves and linguistic realisation. Where the identification of moves is solely on the function of the text, this is the 'top down' approach. Only after the moves are identified, the typical linguistic features of each move are investigated.

As for studies on lecture introductions, Thompson (1994) identified functions in terms of the lecturer's overall goals and communicative aims which is the 'top down' approach. My adopted approach to analysing lecture introductions follows the 'top down' approach initially but cannot escape the 'bottom up' approach when going through data again for consistency to confirm the move structure on the basis of linguistic characteristics.

Thompson's (1994) Framework of Lecture Introduction is used as the analytical framework for the rhetorical structure of lecture introductions for two reasons. First, this model has been applied to recordings of lecture introductions and it includes all the functions and sub-functions identified in my own pilot study. Second, it is also used in a subsequent study on the impact of lecture size on lecture introductions by Lee (2009). While the difference between Thompson (1994) and Lee's (2009) studies are the terminology used in analysing the rhetorical structure, with the former using 'functions' and 'sub-functions' and the latter 'moves' and 'steps', this study views lecture introductions as in agreement with the

former. ‘Moves’ and ‘steps’ is very much in line with the Swalesian rhetorical move analysis and uses the concepts of ‘obligatory’ and ‘optional’, as will be discussed further in Chapter 5. The nature of the lecture as a spoken genre means a greater variation of rhetorical movement which does not adhere to rhetorical structures being of an obligatory nature, as opposed to the original Swales’ (1990) CARS model referring to written research articles. Furthermore, according to Thompson (1994, p.181):

> ‘The lecturer has greater freedom to design the lecture introduction in response to a range of processing problems for the audience created by the real-time, once-only nature of a typical lecture. In addition, though lecturers may work from notes, there are likely to be a number of spontaneous decisions about “what to put where,” and connections may become obvious to the lecturer in the act of delivering the lecture, leading to changes in the planned order of the introduction.’

Also as the lecturer is addressing their academic novices, this does not necessitate that anything they say should have a set pattern to confirm with the expectations of the academic community. Therefore, it is with this in mind that this study explores this genre.

4.4 Considerations behind corpus design

The following sections discuss the issues surrounding the corpus design. First the size which is relatively small in comparison to the current trend of multi-million word corpora informing language research is discussed. Next is the issue of reliability in which the researcher is the sole analyst to assign functions and sub-functions.

4.4.1 Size matters

Whilst the study concerns itself in qualitative terms, we cannot ignore the fact that the data obtained comes from the area of quantitative research in the field of corpus linguistics. Recent research in applied linguistics from a corpus linguistics approach utilises multi-million corpora. Examples of well cited corpora are the British National Corpus (BNC) 100 million words, MICASE The Michigan Corpus of Academic Spoken English (MICASE) 1.8 million words, The Brown University Standard Corpus of Present-Day American English (Brown Corpus) 2 million words, and the Bank of English housed at the University of Birmingham contains 525 million running words as of the year 2005.

It has been argued that the size the corpus needed also depends on what it is to be used for. Essentially the corpus must be so big that there are enough occurrences of the language elements we want to study. A large corpus comprising of about 500 million words can be seen as well suited for linguistic research for learners studying English. Discussing the sample size of a corpus, Sinclair (1991) claims that opinions differ and that a corpus "should be as large as possible, and should keep on going". Furthermore according to Sinclair (1991, pp.18-19):

> 'In order to study the behaviour of words in text, we need to have available a quite large number of occurrences. Again the statistics are against us, since if we classify the occurrences in terms of 'uses' or 'meanings' we shall find the same kind of imbalance again. One of the uses will typically be twice as common as all the others; several will occur once only, and that is not enough on which to base a descriptive statement. This is why a corpus needs to contain many millions of words.'

Another decision about compiling a corpus concerns the suitable size for a sample. Sinclair (1991) also cites the Brown (Brown University) corpus and its UK counterpart the LOB (Lancaster-Oslo-Bergen) corpus in opting for samples of an equal size of 2,000 words. An alternative to this is to gather whole documents to alleviate the potential problem of differences between different parts of texts and the validity of sampling techniques(Sinclair, 1991).

As the Lecture Introduction Corpus is only made up of one genre, it is comparatively smaller than the BASE corpus. In addition, as only lectures with video recordings are used, the corpus size is smaller than the BASE corpus which contains 1,644,942 tokens in total. The Lecture Introduction corpus of 89 lectures only contains 45,305 tokens.

Koester (2010) and others (Flowerdew, 2004a, Handford, 2010) argue for smaller, more specialised corpora as they allow for insights into patterns of language in a particular setting as this results in a much closer link between the corpus and contexts in which the texts in the corpus were produced, in comparison to very large corpora which are comprised of a mix of different text types. Alongside that is the benefit of the compiler who is more often than not the analyst and therefore has a high degree of familiarity with the context, therefore, the quantitative findings of corpus analysis can be balanced with qualitative findings (Flowerdew, 2004a, O'Keefe et al., 2007). Furthermore, the link between corpus and contexts is particularly seen as important in ESP and EAP where studies on small specialised corpora has yielded results that are relevant to informing teaching and learning for specific purposes (Flowerdew, 2002, Tribble, 2002).

4.4.2 Reliability matters

As assigning a chunk of language to a rhetorical structure category is a subjective matter, I believe that conducting an inter-rater reliability measurement to ensure that analysis is reliable and sound is compulsory when conducting rhetorical move analysis. As argued by Crookes (1986 p.61):

> 'In developing an analysis of behaviour which proposes that a particular type of behaviour is made up of a sequence of units, it is standard practice for the accuracy of such an analysis to be established by showing that the units can be defined in such a way that a group of trained raters can record the incidence of units of behaviour at a sufficiently high level of agreement. And this procedure may similarly be applied to an analysis of texts.'

Furthermore, Crookes (1986) argues that Swales' CARS's model is open to criticism as, although it has its own explicit criteria and exemplification, it is still based on personal opinions, which Swales himself recognises (Swales, 1981) . However, a strong defence can be made against this criticism if it can be shown that there is an adequate level of agreement on the application of analytical categories to a corpus by a group of trained raters. The methodology of such validation was an 11 step procedure, as can be seen in Figure 12.

Figure 11 Crooke's (1986) Scientific Text Structure validation procedure

1. A corpus was selected.
2. Raters were selected.
3. The overall design was explained to the raters.
4. Definitions of the units of analysis were presented and discussed.
5. Unit boundary markers were presented and discussed.
6. Worked examples were presented.

7. Raters practised analysing simple texts, whose structure had already been established.
8. More complex texts were analysed, inter-rater reliability scores calculated and disagreements discussed by the raters, both among themselves and with the trainer.
9. Step 8 was repeated, until a satisfactory level of inter-rater agreement was attained.
10. The corpus was rated.
11. Analysis.

Therefore, it was decided that this study will adopt Crookes' (1986) 11 step procedure and that the raters should be individuals with some linguistic sophistication. Two doctoral students were trained using the extensive sequence of fully analysed lecture introductions and representative examples given from the BASE corpus. Based on the feedback, the Lecture Introduction Framework was refined until an agreement was achieved.

It should be mentioned that in Crookes' (1986) study of scientific journal articles satisfactory inter-rater agreement could not be arrived at unless articles which did not conform with the Swales model were excluded. The remainder of the study showed inter-rater Cohen reliability of kappa= 0.96 which is considered to be high. He does not fault the ability of the raters but points to article introductions which deviate from the standard 4 move structure and the issue of no clear boundary markers. This is an issue which has been found in the initial research analysis stage of my own study. A revised model was then created in their study and the raters were able to reach an agreement of kappa Fleiss at above 0.6, which is considered low but acceptable. Crookes (1986) cites Hartman (1977, pp.113-114) stating that no set values for reliability have been formulated yet but he quotes Gelfand and Hartman (1975) in commending that a good of reliability is that the kappa should exceed 0.6.

Crookes' (1986) study used Fleiss' (1971) inter-rater measure of more than two raters. He describes it as a non-parametric statistic derived from nominal categorical data and the unit of coding used was a sentence instead of a clause or phrase. This was a bit problematic as one sentence can realise more than one meaning but the raters were obliged to decide which characteristic was most outstanding. Also, as the discourse was scientific matter, a lack of understanding of the subject matter itself proves to be a problem as the raters are non-subject specialists.

A survey of the literature has proved that establishing reliability in move analysis is not very popular. Recent studies that have used inter-rater reliability measures are Kanoksilapatham's (2005) study on the rhetorical structure of biochemistry research articles, Ding's (2007) Genre Analysis on personal statements and Henry and Roseberry's (2001) move analysis study on 'Letters of Application'. This study includes inter-rater reliability measures in order to strengthen and create a robust Lecture Introduction Framework. The two inter-raters examined four lectures (one from each discipline) containing a total of 30 sub-functions each and an inter-rater reliability analysis using the Kappa statistic was performed to determine consistency among raters. The inter-rater reliability for the raters was found to be Kappa = 0.89 (p 0<.0.001) which can be claimed as almost perfect agreement between raters (see Appendix II).

4.5 Corpus analysis

In addition to a rhetorical structure analysis, the corpus is also analysed using the corpus linguistic software WordSmith Tools version 5.0 (Scott 2008). Wordsmith Tools is a set of powerful programs for examining how linguistic items behave in electronically stored texts.

The program allows users to investigate word lists, concordances and key words among other features. By using WordSmith Tools, the frequency, collocations and concordances of the personal pronouns, lexical phrases and discourse markers were identified and analysed as discussed in Chapters 6 and 7.

4.6 Analysis challenges

Four problems were encountered for which solutions had to be found in order for the efficient analysis of data: one stretch of language containing more than one sub-function, uncertainty of function conveyed, difference with typical data where a short lecture preceded the lecture introduction and lectures which had more than one lecturer speaking in the lecture introduction. What follows are examples of the specific problems and the proposed solutions.

4.6.1 Problem of classification 1: One stretch of language containing more than one sub-function

Understanding the complexities of conveying and processing meaning in real-time in the case of spoken language, it can be argued that a speaker may try to convey two meanings in a stretch of language. Seen in Figure 13, while trying to 'outline the scope', the lecturer 'shows the importance' of the issue by sandwiching the 'importance' between 'the scope' and reiterating the sub-function for effect.

Figure 12 Problem of classification 4.6.1 in SSLCT010

Function	Sub-function	Text SSLCT10
Set Up Lecture Framework	Outline Scope	and then we're going to end up talking about an issue

Set Up Lecture Framework	Show Importance	which has really I guess come to the fore over the last year with crises in Asia in Russia and you know potential crises beyond that in f-, in the financial world
Set Up Lecture Framework	Outline Scope	this is to do with stock exchange market volatility and exchange rate volatility
Putting Topic in Context	Show Importance	both of those er are potentially endemic problems and problems that at the moment don't look like they're going to wi-, go away and also presenting real headaches for policy makers in t-, in terms of the designer institutions are the I-M-F the World Bank current set-up are they sufficient to deal with these sorts of relatively new problems which seem to have arisen through er the increased capital flows

Understanding that the choice of deducing a function to a stretch of language is the objective of the listener and researcher, one who is human and prone to errors in decision-making, this problem is dealt with using my own understanding and guidelines of what a function conveys and typical realisations. An intuitive choice is made about the function a speaker tries to convey, and confirmed by a second rater.

4.6.2 Problem of classification 2: Uncertainty of function conveyed

In the initial stages of analysis, the functions and sub-functions from Thompson's (2004) Lecture Introduction framework was used in the analysis of text. Where the analyst could not assign a stretch of language to a function, a new function was created. The new function is only added to the framework after encountering numerous similar patterns in the corpus and is eventually agreed by the inter-raters.

Figure 14 shows a long stretch of the lecture where the classification of a function can be difficult despite the videos and transcripts available to aide comprehension. The lecture topic in relation to the course lecture programme is unknown, and if there is no sign posting, for a listener that has no awareness of previous lectures and background knowledge of the target audience, it is difficult to classify the function conveyed.

Figure 13 Problem of classification 4.6.2 in SSLCT023

SSLCT023 er so just a few years after Rawls published his book er another one of the Harvard Philosophy department er published er a very sort of radical libertarian tract called Anarchy State and Utopia er this was Robert Nozick it was very provocative and it got lots of attention er favourable and unfavourable he started his book this way individuals have rights and there are things no person or group may do to them without violating their rights so strong and far-reaching are these rights that they raise the question of what if anything the state and its officials may do so that's where that's his starting point he doesn't even argue for that that's where he gets off so he argued that only a minimal state was justified and anything more extensive than that violated people's rights all that this minimal state could do was protect people against force theft fraud and forced contracts and a few things like that but it didn't have any welfare functions he also had a long chapter criticizing Rawls and the whole approach to distributive justice that he regarded Rawls as representative of now his own approach to justice he calls the entitlement theory he avoids the very term distributive justice he doesn't think that justice consists of distributing anything at all he d-, he doesn't like that whole approach er as we'll see now er you'll find that Nozick writes in a very sort of loose style it's very readable but a lot of it is a matter of sort of shooting from the hip and he sort of scatters his shots all over the place and a lot of them sort of miss a lot of them it's a lot of good rhetoric but a lot of his shots really don't hit their targets Related NEW to GIVEN?

I have classed this stretch of language as *Relate Given to New sub-function* as it seems to fit under the main function of *Put Topic in Context function*. This is based on the previous functions of the lecture which suggests that students have some understanding of the subject discussed, and the lecturer is adding to their understanding with further information.

Function	Sub-function	Text
Put Topic into Context	Refer to Earlier Lecture	i told you last time because i didn't finish the lecture on Rawls and utilitarianism that i was going to finish it today
Set Up Lecture Framework	Announce Topic	but actually I've decided I'm not going to i know you'll be very disappointed but think you've had enough of that so I'm going straight into er Nozick and his criticisms of Rawls

4.6.3 Difference with 'typical' data 1: Short lecture preceding the lecture introduction of the main lecture

A typical lecture consists of a short lecture introduction followed by the main body of the lecture. However, in lecture introduction *PSLCT17*, the lecturer gives a 16 minute lecture about the course outline before proceeding to deliver the lecture introduction about the main lecture topic. This is not typical of an everyday lecture introduction, but rather of an introductory lecture for a new course. Despite its difference from other lecture introductions in the corpus, it is included as it is a real sample of an authentic lecture and coded as one lecture.

4.6.4 Difference with 'typical' data 2: More than one lecturer talking in the lecture introduction

In my opinion, a typical lecture at university usually involves one lecturer. However, it is not uncommon to have two lecturers team teaching. They might be sharing the teaching of a course or be a guest for a particular lecture. In the LIC a total of two lectures contained more

than one lecturer, one each from the disciplinary domain of Physical Science and Social Science.

Seen in Figure 15, in lecture introduction *PSLCT023*, one lecturer begins the introduction and outlines the scope of the whole lecture. Then the other lecturer continues and announces the topic and outlines the scope of his/her individual part. While it seems like there is a repetition of functions used, it is not to realise the same thing. This needs to be born in mind on the interpretation of results of frequent use of the functions.

Figure 14 Problem of classification 4.6.4 in lecture *PSLCT023*

Speaker	Function	Sub-function	Text
Lecturer 1	Listener Orientation	Greeting	well good afternoon everybody
Lecturer 1	Set Up Lecture Framework	Announce Topic	er today's lecture's topic is tension structures as you can see
Lecturer 1	Set Up Lecture Framework	Indicate Scope	er this term encompasses all kinds of er three-dimensional structural forms and two-dimensional structural forms er ranging from suspension bridges cable nets cable trusses and fabric membranes now all these terms will become clearer as we go through the lecture we've got plenty of illustrative examples to show you
Lecturer 1	Set Up Lecture Framework	Outline Scope	the lecture falls into several parts initially namex is going to in-, introduce er the basic principles behind the structural actions in tension structures I will then move on to discussing fabric membranes and then we conclude the lecture or first part of the lecture er with er pneumatic membrane structures er in the second part of the lecture we're going to show you a video on tension structures which will reinforce some of

			the concepts ideas presented in the first part of the lecture and then finally we're going to move on to a workshop where we we're going to be experimenting with er tensegrities and what else er reciprocal frames
Lecturer 2	Set Up Lecture Framework	Announce Topic	reciprocal frame structures yeah
Lecturer 1	Listener Orientation	Announcement	er and so on so it's going to be an action packed afternoon [laugh] okay I hope you're going to enjoy it now over to namex
Part 2			
Lecturer 2	Set Up Lecture Framework	Announce Topic	right well as er namex has said I'm going to introduce some of the basic principles er of tensile structures
Lecturer 2	Set Up Lecture Framework	Outline Scope	and one of the really basic principles is the fact that they are tensile structures and you can demonstrate their efficiency by something as simple as a strip of paper which er will carry quite a reasonable load in tension but you try and invert this structure so that it's carrying this load in compression turn it the other way up and of course it won't even support its own weight so that's the first lesson to learn that tensile structures are highly efficient because they they don't buckle er I'm sure you all know about buckling behaviour of structures and the majority of materials are actually reasonably strong in tension therefore er you can use most materials as er for tension structures er the second thing we're going to look at is the er behaviour of horizontal tension structures and er the simplest form of that is just a structure hanging under its own weight and here I've got a a chain er which is hanging under its own

			weight and as you can see it forms a curve and this curve where it's er just acting under its own er self-weight is known as a catenary curve the load is not quite uniform along the structure as a a metre of span at the end is er contains a greater length of cable than er a metre in the middle if we then put some load on the structure you see that er in fact it's now changed shape and er a point load in the centre forms approximately a V-shape structure if we then put er an additional load on the structure we see that it's changed shape again and er forming a trapezoidal shape

Similar to the Physical Science lecture, in lecture introduction *SSLCT035* (Figure 16), one lecturer introduces both lecturers and outlines the scope of the whole lecture. The next lecturer also outlines the scope of her part of the lecture in her introduction, amongst other sub-functions used.

Figure 15 Problem of classification 4.6.4 in lecture *SSLCT035*

Speaker	Function	Sub-function	Text
Lecturer 1	Listener orientation	Introduce Oneself	this morning namex and I will give a sort of joint session
Lecturer 1	Set Up Lecture Framework	Announce Topic	looking at how you formulate a manufacturing strategy
Lecturer 1	Putting Topic in Context	Refer to Earlier Lecture	we talked a lot yesterday but-, about how you need to integrate your operations strategy with all your other strategies we looked at s-, some tools and for doing that with namex we had a look at the effect of that on a small real company H-G Plastics last night
Lecturer 1	Set Up	Outline Scope	now we're actually going forward to

	Lecture Framework		look at what goes into an operations strategy and how you then go through a process of putting it together we'll look a-, be looking at some academic models as I say that sounds very boring but they are ones we'll see later that real companies use in real life and basically do something different
Lecturer 1	Listener Orientation	Announcement	can we ask you all to shut your manuals please just manage without the slides for a while you'll see why in a minute
Lecturer 1	Putting Topic in Context	Show Importance	'cause we're going to ask you to do an exercise and the answer's on the slides so just to make it slightly more difficult for you if you could close your manuals er just for the first few minutes of the session
Lecturer 1	Listener Orientation	Announcement	and I'll now pass over to namex who's going to start this morning off
PART 2			
Lecturer 2	Listener Orientation	Greeting	okay good morning
Lecturer 2	Set Up Lecture Framework	Outline Scope	oh hurray [laugh] right we're looking at the development of manufacturing strategy then and we're taking it from the work that we did yesterday on strategy integration
Lecturer 2	Putting Topic in Context	Show Importance	so you'll need to remember some of the things we did yesterday can you remember that far back yes just about good the objectives then of the session for this morning are to be able to understand what manufacturing strategy is and be able to define it so you should have a much better understanding of what it actually is
Lecturer 2	Set Up Lecture Framework	Outline Scope	today er operation strategy too and you should be able to discuss and give examples of how it can be formulated so we're looking at the actual process and the content of making man-, of

			developing manufacturing strategy we're going to look at how you'd formulate manufacturing strategy and we're going to ask you the questions for that
Lecturer 2	Putting Topic in Context	Show Importance	er hence why we don't want you to look in your manuals yet
Lecturer 2	Set Up Lecture Framework	Outline Scope	and then we're going to introduce three different frameworks for developing manufacturing strategy there are more than three
Lecturer 2	Putting Topic in Context	Show Importance	we have preselected these three because we believe it gives you a variety of different frameworks to consider
Lecturer 2	Listener Orientation	Refer to Visual	er there are many more for which at your leisure you're welcome to go to the library we've referenced more in our notes which are very comprehensive
Lecturer 2	Set Up Lecture Framework	Indicate Scope	but we're only covering three today Terry Hill Platts and Gregory and John Miltenburg so they're the three that you'll be using and you may wish to use some of the material as well when you do your S-C-L case study which I believe you start this afternoon okay so do take some note of this we will remind you of some of the key strategic tools for formulating strategy we will link back to what we did yesterday er you will also cover more analytical tools in your S-C-L case study which you will do for the remainder of the week okay so we'll be bringing some of them in today because they do come i-, under the frameworks and at the end we'll be just reviewing summarizing if you like the key characteristics of the different frameworks obviously as I was saying to you yesterday about

			Master's level about understanding and application one of the key things that we'll be measuring is your ability for critical analysis okay and critical analysis is looking at things like what are the characteristics of all these frameworks what are the strengths what are the weaknesses what are m-, what is my view how can I compare the two so we'll be sharing that with you at the end

These two lectures are also included in the lecture introduction corpus, despite their difference because they are samples of authentic lectures and are representative of what does happen in normal lectures.

4.7 Chapter summary

The data for the Lecture Introduction Corpus contains 89 texts that have been analysed as lecture introductions taken with permission from the BASE Corpus. The size of the corpus, although small, is claimed to be sufficient for this study in that the texts used are representative of the genre studied and will therefore give a better reflection of the target linguistic patterns and context of lecture introductions.

In analysing the data, validity is achieved by employing two independent raters in the analysis of the lecture functions and sub-functions identified in order to strengthen and create a robust Lecture Introduction Framework.

In dealing with uncertainty and problematic analysis, the multimodal aspect of lectures requires interpretation by both transcripts and video recordings in order to mitigate the problems that occurred. Where there were functions that did not fit within the descriptions of

the framework, new sub-functions were added. In situations where the data was not as expected or differed to what can be seen as a normal lecture, decisions were made to include and categorise under certain sub-functions for easier analysis.

The following chapter discusses the first part of the analysis of the Lecture Introduction Corpus from a genre based approach.

CHAPTER 5 GENRE ANALYSIS OF FUNCTIONS AND SUB-FUNCTIONS OF THE LECTURE INTRODUCTION CORPUS

5.1 Introduction

This chapter is divided into two main parts. The first part defines the functions and sub-functions of the Lecture Introduction Framework as proposed earlier in *Chapter 3 The Lecture Genre*. The second part illustrates a move analysis of a lecture introduction to show how the Lecture Introduction Framework is applied in this study.

5.2 The Lecture Introduction Framework

As mentioned previously in Chapter 4 Corpus Compilation, the initial approach to analysis was to apply Thompson's (1994) framework to the data. A pilot study on applying the framework to the Lecture Introduction Corpus revealed that adjustments and modifications were needed where one move (which is referred to as 'function' in this study) was adopted from Dubois' (1980) study on the spoken academic presentation genre. Additional moves (which are referred to as 'sub-functions' in this study) were also added by the analyst which are original to this research. This section discusses the proposed changes made to produce the Lecture Introduction Framework.

It has been decided that the classification of the lecture introduction sub-functions fall into a two-level classification which first differentiates lecture content orientation versus listener orientation. The lecture content orientation follows earlier research of lecture introductions by Thompson (1994) while the listener orientation follows in the research of Dubois (1980).

Thus, the Lecture Introduction Framework (Table 17) proposed for this study comprises of two main functions at the first level of classification: three main functions and realised by fifteen sub-functions. The first two main functions identified by Thompson (1994) are *Set Up Lecture function* and *Putting Topic In Context function*. Analysis of a large sample of lecture introductions sees the use of a third function originally identified by Dubois (1980) as *Listener Orientation* but was not considered by Thompson (1994) to be a main function in her analysis, as it was argued to be in all parts of the lecture and, not only limited to the introduction. I believe it is a very important to part of a lecture introduction because without acknowledging that it exists, we are not analysing what truly happens in the real world. The items highlighted in bold in Table 17 are additional moves (functions) identified in this study in addition to the functions and sub-functions identified in Thompson's (1994) study. The additional sub-functions occurred at least ten times collectively by all disciplines in the Lecture Introduction Corpus as can be seen further in Chapter 6 Discussion of Genre Analysis Results.

I shall now define the functions and sub-functions and provide examples from the data. I have chosen examples which can be easily distinguished and typify the functions discussed. The lexical items and verb forms are highlighted in the examples.

Table 17 Lecture Introduction Framework

Lecture content orientation		**Listener orientation**
***Set Up Lecture Framework function* (S U L)**	***Putting Topic in Context function* (P T I C)**	Listener Orientation (L O)
Announce Topic	***Show Importance***	Greeting
Indicate Scope	***Relate NEW to GIVEN***	Announcement

Outline Scope	***Refer to Earlier Lectures***	Introduce Oneself
	Recap Earlier Lectures	Refer to Handout
	Refer to Future Lectures	Check Comprehension
		Check Comprehension Feedback
		Refer to Visuals

5.3 Linguistic features which characterise the functions and sub-functions:

Set Up Lecture function.

The *Set Up Lecture Framework function* orientates the lecture-as-object towards audience and it assumes a dominant feature of lecturer in the function signalled by '*I*' as subject (Thompson, 1994). In this study, this function is further realised by four sub-functions, in no particular order:

- Sub-function 1: *Announce Topic* (AT)
- Sub-function 2: *Indicate Scope* (IS)
- Sub-function 3: *Outline Scope* (OS)

5.3.1. The Announce Topic sub-function

The *Announce Topic sub-function* involves the lecturer telling the students the title or topic of the lecture. According to Thompson (1994), lexico-grammatical choices highlight the role of the lecture (*I*) acting (*e.g. explore, talk about*) and the here-and now (*e.g. today, in this session*). In this study, another sub-function of Thompson's (1994) study known as *Present Aims sub-function*, which I have not listed as a sub-function of the *Set Up Lecture Framework function*, is very close in meaning to the *Announce Topic sub-function*, and both will be

treated as the same sub-function. *Present Aims sub-function* is defined by the lecturer as outlining the purposes or aims of the lecture using the words '*aim*' or '*I want to'* plus a justification. These two sub- functions are similar in that they introduce the topic of the lecture or what the lecturer is going to talk about, and therefore are not seen as two separate sub-functions for the purposes of this study. Both sub-functions deal with lexis regarding time relating to 'now' and both tell the listeners the topic, using an 'acting' verb or through the aims, although sometimes the verb 'aim' is not used at all. Furthermore, a justification is not always presented when a lecturer presents an aim. In the Lecture Introduction corpus, examples of this sub-function can be seen in Table 18.

Table 18 Examples of *Announce Topic sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	*today* er we'll look at the transition to EMU the costs and benefits that sort of thing.	SSLCT10
2.	okay you probably remember that we are dealing with compensation *now*.	SSLCT13
3.	Er our topic *this morning* is er collaborative learning.	SSLCT40
4.	er today's lecture's topic is tension structures as you can see.	PSLCT23
5.	okay *now* i'm to-, *today* er i'm going to be talking about artificial life.	PSLCT35
6.	so what i'm going to do *today* is talk a little bit about the background er of research medical research ethics	LSLCT19
7.	er acute renal failure	LSLCT33
8.	so the subject of *today's* is kidney stones	LSLCT28
9.	*now* what i will do *now* is er just say a few things about why i write about slavery	AHLCT01
10.	and i'm just giving a lecture er *today* on Max Weber and er The Protestant Ethic and the Spirit of Capitalism which is the text er for this seminar and i do just er for the semin-, the seminar that goes with	AHLCT27

	with this lecture	

The examples in Table 18 shows that the pronouns used are not just '*I'* as claimed by Thompson (1994). Item 1,2 and 3 in the table are the inclusive '*we'* and possessive '*we'* suggesting that lecturers try to create rapport with students by including them as a shared subject of the activity of the lecture. Hyland (2009) highlights that '*we'* and '*you'* play a key role in creating an atmosphere of interaction and involvement in lectures, and are often used to include students in the community of experts, drawing them into the processes of disciplinary research and the questions which motivate them.

The examples also show high use of lexical items referring to the here and now with '*today'* and '*now'* and '*this morning'*. The choice of verbs used in the examples are a mix of future references (e.g. *we will, I'm going to*) and the present time (e.g. *we are dealing with, I'm just giving a lecture on*). Chapter 8 discusses further the Corpus Analysis of the linguistic realisations of this sub-function and the other two sub-functions of *Set Up Lecture Framework function* in depth.

Interestingly, item 7 shows that this sub-function can be realised just by mentioning the topic proceeded by '*Er*'. Another interesting point is that '*Er*' proceeds the actual topic in other sub-functions found (item 4, 11) and that the Word List generated by Wordsmith Tools 5 revealed '*Er*' as the third highest occurring 'word' in the whole corpus (see Chapter 7).

5.3.2 The Indicate Scope sub-function

In the *Indicate Scope sub-function,* the lecturer gives information about the relative importance for each component of the lecture in the context of the whole and prepares the listener for the depth of coverage devoted to each component. Thompson (1994) identified verbs used indicating scope (e.g. *focus, indicate*), lexical items indicating centrality or peripheral (e.g. *main features*), and depth or breadth (e.g. *briefly, broad*).

Table 19 Examples of *Indicate Scope sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	and looking looking at them in *some depth* as illustrating er the sorts of things that er you can do with photochemistry.	PSLCT06
2.	and now i will *briefly* remind you what we were doing last week first well and the week before that.	PSLCT26
3.	and i'm going to *concentrate* on three main aspects today the biographical aspect the whole issue of parody and issues about er relationship to history	AHLCT13
4.	er okay and er the theme of the lecture in a sense will be that of hybridity and *especially* hybridity between French and American culture French and America cinema er	AHLCT16
5.	so we're looking at damages awards	SSLCT13
6.	er *the first question* i suppose is what is the law trying to achieve er in relation to prostitution3	SSLCT15
7.	so why do we need to regulate medical research	LSLCT19
8.	i'm going to talk to you *a bit* about glomerular disease and bring in a bit of pathology	LSLCT34

In describing this sub-function, Thompson (1994) identifies the verbs '*focus'* and '*indicate'*. However, seen in Table 19, the verbs I found are different, although *concentrate* (item 3) is similar in meaning the verbs '*focus'* and '*indicate'*. Also observed in Table 19 are verbs which refer to future intention of focusing on the scope to cover in the lecture, for example *I'm going to talk to you* (item 8), *we're looking at* (item 5). Some lexical items indicating depth found are *some depth* (item 1), *briefly* (item 2), *a bit* (item 8) and also numbering, for example *three main aspects* (item 3), *the first question* (item 6).

5.3.3 The Outline Scope sub-function

In the *Outline Scope sub-function*, the lecturer lays out the sequence of the lecture which is signalled by markers indicating sequencing (e.g. *firstly, then*), temporal relationships (e.g. *before, later*) and, in some cases, verbs suggesting movement along a route (*start off, move on to*) (Thompson,1994).

Table 20 Examples of *Outline Scope sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	i want to move on now to something called the Smith and Manchester award.	SSLCT13
2.	er the er starting point really for our consideration of what the law is today is The Criminal Justice and Public Order Act of nineteen-ninety-four er.	SSLCT14
3.	and the f-, the first question is er why should one er choose titanium dioxide as a a a thing to do this.	PSLCT06
4.	so what i'm going to do is i'm going to take this stuff and put it up there and then i'm going to solve the problem over here and you'll be able to see how they relate one to the other.	PSLCT15
5.	let me begin by resuming where we finished yesterday. the first property is that clearly the elasticity is negative.	PSLCT16

6.	okay i'll i'll begin then	AHLCT32
7.	okay w-, let's start er what we're going to do today in today's lecture today's lecture's divided into two main parts the first part we'll look at some of the essential aspects of meditation six and the second part er we'll examine er Descartes' notorious mind body dualism okay so it's divided into two main parts	AHLCT39
8.	we're going to start off by er having er a a a a short thirty minute lecture on inequalities in access to care then after probably just a two minute stretch and er ti-, a comfort stop we'll then follow it by another thirty minutes looking at how inequalities can be tackled then we've got a coffee break and then we'll finish off the morning looking er further at the theme of tackling inequalities in health and looking at the policies and initiatives that have been put in place to tackle health inequalities	LSLCT12
9.	and i thought probably what i'd do is start with a single equation and this is the only equation you're going to see in this lecture	LSLCT17

Seen in Table 20, examples of the *Outline Scope sub-function* from the Lecture Introduction Corpus contain markers indicating sequencing e.g. (3) *first question,*(4) *and then,* (7) *first part*, (7) *second part*, (8) *then*, and in some, verbs suggesting movement along a route e.g. (1) *move on*, (2) *starting point*, (5,6) *begin*, (7,9) *start* and (8) *start off* and phrases which carry movement meanings e.g. (8)‘*we’ll then follow it by’* and *‘then we’ll finish off’*. Although most of the examples actually mention ‘the scope’ outlined, in example (6) *okay i'll i'll begin then*, the ‘scope’ is not specifically mentioned but the students understands that the main part of the lecture will begin.

5.4 Linguistic features which characterise the functions and sub-functions:

Putting Topic in Context function

The *Putting Topic in Context function* is used to orientate 'lecture-as-content' (Thompson, 1994). It is likely that the lecturer shows some reference to include audience by using '*we*' and is realised by five sub-functions, the first three of the following identified by Thompson (1994):

- Sub-function (1) : *Show Importance* (SI)
- Sub-function (2): *Relate New to Given* (NG)
- Sub-function (3): *Refer to Earlier Lectures* (RE)
- Sub-function (4): Recap Earlier Lectures (CE)
- Sub-function (5): *Refer to Future Lectures* (RF)
- Sub-function (6): *Refer to Visuals* (RV)

5.4.1 Show Importance sub-function

According to Thompson (1994), in the *Show Importance sub-function*, the lecturer highlights the features of lecture topic which are particularly interesting, central or widespread. The lecturer evaluates, on students behalf, the audience's place and the significance of the topic in their world. This sub-function is signalled by expressions indicating the importance of the topic for example, *major, and a growth area*.

In the *Show Importance sub-function* examples in Table 21, expressions indicating importance found are '*important*', '*really important*', '*extremely influential*', '*very influential*' (item 4), '*is absolutely mandatory*'(item 3). Also found is an expression indicating evaluation

are '*in my view'* (item 4). Alongside that is expression indicating evaluation in '*so*' clauses which give reasons for importance (items 1, 2).

Table 21 Examples of *Show Importance sub-function* in the Lecture Introduction corpus.

	Extract	Lecture
1.	so let's forget this stuff the stuff up there and use the first order conditions to solve a particular problem so you can see how they work in practice.	PSLCT15
2.	okay so let me so i thought this would be a non-paper course it's just all going to be an electronic course and then i thought well you can't not give handouts and when when people come round universities doing teaching quality assessments all they do is they er they don't look at films like this they er all they do is they er they go to filing cabinets and they flick through filing cabinets and they want to see lots of handouts okay so i've had to do a handout.	PSLCT17
3.	that's that's a a general concept applied with any decision procedure we might er propose and er the significance level alpha everybody uses that notation the significance level is the probability that if if H-nought is true that we would by chance get a data set that was in the critical region so these were the five things that i i talked about er yesterday and these are five key ideas er that understanding what these are is absolutely mandatory if we're going to get anywhere at all in talking about er significance.	PSLCT36
4.	now inflation targetry really in my view covers er well basically all of the current macroeconomic monetary policy er framework and policy and er basis in the U-K at the moment and i think that's really important not only because it's important for the U-K but also the U-K's policy has been extremely influential throughout the world i mean a lot of countries refer to the U-K when they look at how they should set out their monetary policy we've just been very very influential that's partly as we'll see because we started quite early not necessarily through design but partly through accident of nature er .	SSLCT10

5.4.2 The Relate New to Given sub-function

In the *Relate New to Given sub-function*, the lecturer provides a context for the lecture by placing the topic of the lecture which the lecturer treats as new into the context of a given. The lecturer may choose to draw upon the audience's (assumed) existing knowledge and experience or refer to uncontroversial reality of past or present research or technology (Thompson, 1994).

In Table 22, the phrases which draw upon audience's assumed knowledge are '*as you know*' (items 2,3), '*we know'* (item 2) and '*we mean of course*' (item 4). The use of personal pronoun '*we*' in this sub-function also assumes shared knowledge. There are examples of anaphoric reference to shared knowledge with the use of '*this*' (item 1) and the phrase '*now that being the case*' (item 5).

Table 22 Examples of *Relate New to Given sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	now er there are some problems with this	AHLCT17
2.	as you know er biological sciences is an experimental science everything we know about biology we have learned either by c-, careful observation of living organisms or through experiments er experimental work in in biology	LSLCT10
3.	er which as you know causes warts so it's infection is localised to the skin infection of squamous epithelium	LSLCT36
4.	er and by policy we mean of course what should the law be doing in order to deal with any problems if any are found relating to prostitution er in order to er alleviate such problems and make the world better which is what policy is all about er.	SSLCT15
5.	now that being the case you might say well all right you've got ions in excited states or so you say er what happens immediately after this event has occurred.	PSLCT05

5.4.3 The Refer to Earlier Lecture sub-function

According to Thompson (1994), the *Refer to Earlier sub-function* is when the lecturer refers to earlier or previous lecturers and can do this by using verbs relating to memory (e.g. *recall*), a reference to previous lecture (e.g. *last time*), and what they did (e.g. *we looked at*).

After much analysis of the data about earlier lectures, in addition to *Refer to Earlier Lecture* sub-function, an additional *Recap Earlier Lecture* sub-function was created. The former refers to a mention of a previous or earlier lecture while for the latter, the lecturer gives a short summary about what was discussed in the previous lecture session or sessions to relate it to what is going to be discussed that day.

Seen in Table 23, the examples of this sub-function is comparatively shorter than the *Recap Earlier lecture* sub-function and the verbs used are a mix of the past simple e.g. *I told* (item 2), *I started*, *I finished* (item 4), present perfect e.g. *we have looked* (item 1), present perfect continuous e.g. *we have been looking* (item 3). References to earlier lectures in the examples are '*last couple of lectures*' (item 1), '*last time*' (item 2), and 'last three lectures' (item 3) and 'yesterday' item 4

Table 23 Examples of *Refer to Earlier Lecture sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	so what we've looked at in the last couple of lectures the process through which Spanish America became independent of European rule	AHLCT07
2.	i told you last time because i didn't finish the lecture on Rawls and utilitarianism that i was going to finish it today	SSLCT23
3.	i guess in the last three lectures what we've been looking at has been has been the generality of photochemical processes	PSLCT06

4.	yesterday i started by talking or i finished i should say by talking to you about the different classification schemes that are available clinical classification schemes that are available for AIDS diagnosis and for monitoring the progression in the disease	LSLCT08

5.4.4 The Recap Earlier Lecture sub-function

Though both referring to an earlier lecture, the *Recap Earlier Lecture* sub-function is longer than *Refer to Earlier Lecture* sub-function because the lecturer recaps the content in some depth of an earlier lecture. The examples in Table 24 show references to earlier lecture by '*yesterday'* (item 1 and 2) and the intention to summarise or recap the earlier lecture by the verb ' *recap*' (item 2) .The verbs used in the two examples ' *I was talking*' and '*we er were looking*' are in the past continuous form suggesting an action in the past that hasn't been completed.

Table 24 Examples of *Recap Earlier Lecture sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	right well yesterday i was er talking about the idea of a track in radiation chemistry whereas the particle moves along it's losing energy we know it loses energy at a great rate we know the energy of the particle we know the range of the particle what happens to this energy how does it get transmitted to the medium and this gave an indication that the principal acts of energy deposition are in the form of ionization and also o-, of excitation as well that that's an overall picture	PSLCT05
2.	and just to recap the topics we covered yesterday do you remember we er were looking at the way the judiciary will calculate the damages and we finished yesterday's class by considering the new method of calculation called the use of the Ogden tables if you remember previous to this summer the judges had relied on a fairly arcane form of calculation using something called the multiplier method where you took a sum which was usually the net earnings and multiplied by a figure that they had taken from precedent really and we saw yesterday that the new method under the Ogden tables and the reduced interest rate of three per	SSLCT13

	cent did result in quite a substantial difference in the amount of the awards so where judiciary now use these Ogden tables which are based more on economics the awards are can be quite a lot higher than where they used the multiplier so quite a significant change has occurred this summer in the case of Wells and Wells House of Lords decision	

5.4.5 The Refer to Future Lecture sub-function

The *Refer to Future sub-function* refers to lectures to come in the future. This sub-function has identified this sub-function and added it to the Lecture Introduction Framework. Seen in Table 25, this is done by using verbs relating to future '*I'm going to*'(item1), ' *I shall*'(item 1,2), '*we will*'(item 3), *'(he) will be talking'*(item 4), and reference to future '*next term*'(item 1), '*next week*' (item 2), '*a little bit later in the course*'(item 3) and '*Thursday*'(item 4).

Table 25 Examples of *Refer to Future Lecture sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	and in fact i had hoped to do more than that and i think i'm not going to have time to do more than that in an hour so i'm going to as it were hold over part of my agenda till next term when i lecture on modernism and gender and i shall talk in more detail next term about the issues around Orlando's sex change and issues of er identity sexual identity and the whole issue of the self whatever that is so today is going to be as it were part one of my approaches to Orlando	AHLCT13
2.	and then move on next week to begin to look at things that go on within between groups prejudice discrimination intergroup relations cooperation and conflict er other other points about this i think they are er relevant very very much to the s-, the stuff that Ian Morley talks about in his third year course Ian Morley's third year option is called Applied Social Psychology its its particular emphasis is on applied social psychology in organizational contexts and those are mainly sort of i-, er or in-, sorry industrial organi-, no t-, that's just not the quite work organizations i mean the word organization can be very loose but he he has a fairly specific er view of that and therefore some of	SSLCT29

	these concepts particularly i shall talk about group think towards the end and group polarization and and leadership will be topics that he picks up again	
3.	but the second one has this generic class and we'll look at that a little bit later in the course	PSLCT10
4.	er but the point about that is to give you background in-, into the understanding of renal disease now my colleague Dr er golly my colleague Dr his name drops out of my mi-, namex er on Thursday will be talking to you about care and maintenance looking after of er patients who've been transplanted for kidney disease and he'll be talking to you a little bit about the ethics of transplantation and inevitably he will go over some of the ground that i'm going to present now	LSLCT11

5.5 Linguistic features which characterise the functions and sub-functions: the *Listener Orientation function*

The final function is coined from Dubois (1980)'s study of poster presentation called the *Listener Orientation function* where the lecturer refers to other matters besides the academic lecture topic which relates to the listener. Subsequent study on conference presentation by Rowley-Jolivet and Carter-Thomas (2005 ,p.52) also used this function in describing the move model for conference presentation and claims that " it is particularly marked in the initial section, where certain speakers make an extra effort to set up a rapport with their audience and create their persona for their presentation."

Based on the findings in this study, the *Listener Orientation function* is made up of the following seven sub-functions. As previously mentioned, these sub-functions occur at least ten times in the corpus to establish its position in the framework.

- Sub-function (1) : *Greeting* (GR)

- Sub-function (2): *Announcement* (AN)
- Sub-function (3): *Introduce Oneself* (IO)
- Sub-function (4): *Refer to Handout* (RH)
- Sub-function (5): *Check Comprehension* (CC)
- Sub-function (6): Check Comprehension Feedback (CF)
- Sub-function (7): *Refer to Visual* (RV)

5.5.1 The Greeting sub-function

As seen in the examples in Table 26, the lecturer greets the audience by saying '*hi*', '*welcome*' (item 1), '*good afternoon'* (item 2), '*thanks very much*' (item 3) and '*good morning'* (item 4).

Table 26 Examples of *Greeting sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	h-, hi everyone welcome	AHLCT21
2.	well good afternoon everybody	PSLCT23
3.	thanks very much for coming to our symposium on educational research er	LSLCT20
4.	okay good morning	SSLCT35

It is interesting to see that greeting does not happen every time there is a lecture as appropriate greeting can be considered crucial for the establishment and maintenance of interpersonal relationships. Such high value is that of greeting that Firth (1972) (cited in Laver 1979, p.29-30) views the verbal and bodily rituals of greeting and partings 'is a

ceremonial, ritual function as it follows patterned routines, it is a system of signs that convey other than overt messages, … and it has adaptive value in facilitating social relations.'

Brown and Levinson (1978) have attempted to analyse the functional application of politeness to the performance of FTAs (Face Threatening Acts). They distinguish negative face (the want that one's action be unimpeded by others) and positive face (the want that one's wants be desirable to at least some others). If the strategic ends of speakers in conversational act are to be achieved, various politeness strategies must be used to maintain the participants' negative face or to enhance their positive face. Greetings can be viewed as indicating that such maintenance of enhancement of face has been taken into consideration in an interaction.

Figure 16 Laver's (1981) Summary diagram of factors that constrain the polite choice of formulaic phrases of greeting and parting in British English

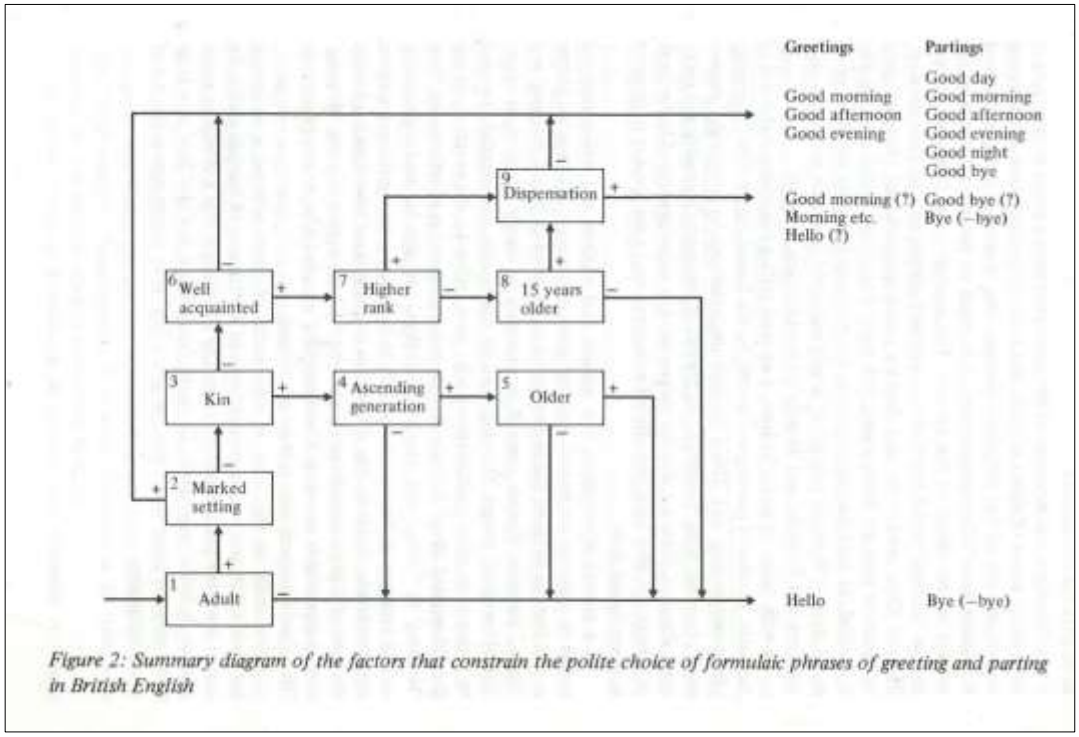


Figure 2: Summary diagram of the factors that constrain the polite choice of formulaic phrases of greeting and parting in British English

Key: numbers refer to sequence to follow, + = yes, - = no

Laver (1981) proposes the path choices that underlie the polite norm in choice of formulaic greetings and partings as illustrated in Figure 15. Polite usage in greetings is claimed to be reciprocal between equals and non-reciprocal between participants of unequal status. According to Figure 16, as the greeting phrases 'Good morning/afternoon/evening' are used in situations maximum formality and distance, it is also used to acquaintances of higher rank and greater age. This could explain the lack of greeting in the corpus, due to the unequal status between participants and social distance between lecturers and students.

5.5.2 The Announcement sub-function

In this sub-function the lecturer addresses matters unrelated to the lecture topic but important for the course. It could be administrative in nature or about changes in the course. This function can be signalled by a variety of linguistic realisations as it could indicate a variety of topics. Seen in the examples below they can be about– timetable changes (item 1), test notification (item 2), time arrangements (item 3) or lecturer's question-answer preference in the lecture (item 4) which do not necessarily relate to the actual lecture topic.

The verbs used to carry out announcements vary according to the meaning and message conveyed and therefore no specific verb can be attributed to this sub function. In Table 27, there is reference to '*you*' the listener in the sub function to things the lecturer would like them to know, although '*we*' is used to refer to shared activity. Also used is the phrase '*your attention*' before proceeding to the actual announcement (item 1 and 2).

Table 27 Examples of *Announcement sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	can i just draw your attention to two changes from last term one is the timetable which er er most of you seem to have re-, er remembered this change in the timetable but also i think i'm right in saying the screening is either earlier than i thought it	AHLCT15
2.	okay can i have your attention please we shall do the test in the last er fifteen twenty minutes of the lecture	PSLCT26
3.	er i'm timetabled to have two sessions er but er unless you particularly want a break i was thinking of just merging it into one er see if you can concentrate for an hour and a half	LSLCT33
4.	maybe i said it at the very beginning er but maybe i didn't so f-, er while i talk feel free sort of to interrupt me if you have any questions directly as i'm going on because as you will have noticed er er i and i guess namex as well we have a tendency just just just to talk to the very end of the lecture so there is not really any time to ask questions directly at the end only then in the seminar but if you want to raise points directly related to what we are doing er just feel free to do so then we we can interrupt and and answer questions or give more detail er otherwise er	SSLCT30

5.5.3 The Introduce Oneself sub-function

A lecturer might introduce him or herself when lecturing to students for the first time on a new course or in the position as a guest lecturer. In the examples, lecturers use phrases like '*My name's nameX'* and '*My name is NameX*' begin the function. What may follow will be a short description of work history – past or present. In the examples, the lecturer refers him or herself by the first name, transcribed as *nameX*, usually without title or formal address. In the Life Science lecture example (item 3), the lecturer is introducing another speaker, which is common practice in this discipline which draws on the knowledge of working professionals.

Table 28 Examples of *Introduce Oneself sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	er my name is namex and i work in the French department of the Modern Languages Unit here at the University of namex and also at namex University.	AHLCT17
2.	my name's namex and i'm responsible for the International Business Environment course for the next ten weeks with my colleague namex	SSLCT32
3.	so we should introduce our first speaker er Dr namex who is from namex University he is an academic G-P registrar but is shortly to become a lecturer in communication skills at namex University he's also a general practitioner and he's going to talk about student centred evaluation using the nominal group technique thank you	LSLCT20

5.5.4 The Refer to Handout sub-function

Handouts are an important part of lectures as a means of summarising what lecturers have planned to say or as further information to what they have not have enough time to cover during the lecture. Handouts are sometimes the paper version PowerPoint presentation slides, also referred as *'lecture notes'* or '*page X*' as seen in Table 29. References to the listener with '*you*' is also present to draw their attention to the handout.

Table 29 Examples of *Refer to Handout sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	and there are three handouts the first says at the top Aspects of European Cinema spring term nineteen-ninety-nine er Italian Cinema blah blah blah	AHLCT15
2.	er you have some examples in your lecture notes on page a hundred er for example we might observe the proportion of people with diabetes in a sample and that would give us an idea of the underlying prev-, prevalence of diabetes in a particular population another example would be breast cancer survival we might observe the proportion	LSLCT15

	surviving who were treated with tamoxifen whereas what we're actually interested in is the effect of survival on treating everybody with tamoxifen if they have breast cancer er so that gives you an idea quickly of the difference between observed data and underlying tendencies which give rise to data objective two of understanding concepts of sources of variation and randomness	
3.	you'll see on the front you've just got a very brief overview a couple of extra references	SSLCT25
4.	so the learning outcomes of this morning's session are outlined on page twenty-one	LSLCT12

5.5.5 The Check Comprehension sub-function

A lecturer may employ the *Check Comprehension sub-function* in a lecture to make sure the audience are following the lecture or understand concepts or to check students' prior knowledge. As seen in Table 30, the sub-function is realised by 'Yes'-'No' questions. Items 1 and 3 show examples of questions which allow the lecturer to determine students' previous knowledge in relation to the lecture topic. Also seen in item 2 is an example of the lecturer checking that students have understood what has been talked about before moving on to the next thing.

Table 30 Examples of *Check Comprehension sub-function* in the Lecture Introduction Corpus

	Extract	Lecture
1.	how many of you have done Pascal?	PSLCT10
2.	are there any questions about that before we start	LSLCT12

3.	how many of you have done accounting for finance courses before have done accounting courses?	SSLCT33

Within this communicative function, two examples of Sinclair and Coulthard's (1975) *Initiation/Response/Feedback pattern* where found where the feedback becomes a negotiated scope for the lecture as seen in Table 31 and Table 32.

Table 31 Example of *Initiation-Response-Feedback structure* in *SSLCT10*

er in the course handout the overview for the whole course er i included er an outline of the topics that i'm going to cover all of this is really tied in with er top-, topics that you may well have covered previously like central bank independence just so i know roughly where to pitch that sort of topic i'd be interested to know who did ECAP- two or the one that's taught by namex last year can you just stick up your hand if you did that	Check Comprehension (*Initiation*)
Students put up hands in video recording	*Response*
okay okay so you've already covered topics like central bank independence which which is going to be really really useful and also hopefully what i'm going to say today and in f-, er future lectures relates to that	Check Comprehension Feedback (*Feedback*)

Table 32 Example of *Initiation-Response-Feedback structure* in SSLCT26

has anybody got any sort of commissioning or purchasing issues that they would like to have as a theme to to the session anybody they can think of that's going on in their organization that they think we've got a particular problem of that we can base the s-, the the lecture round mm	Check Comprehension (*Initiation*)
nf1200: the problem we've got is matching the data to the contracts the data that comes across matching it to the services	*Response*
nf1199: right	Check Comprehension

okay nf1200: nf1199: so we need to look at one of the things we can do is explore a little bit detail in in the difficulties with ob-, obtaining information on contracting activity fine what i'll intend to do then is just briefly do an overview of what N-H-S commissioning contracting and purchasing is all about	Feedback (*Feedback*)

5.5.6 The Check Comprehension Feedback sub-function

The *Check Comprehension Feedback sub-function* always comes after the *Check Comprehension sub-function*. After the *Check Comprehension sub-function*, students will give response to the question directed to them and a lecturer might choose to give feedback to the audience to signal that they have noted the response to their previous question. All of the examples in Table 33 start with an affirmative *'okay'*, *'good'* and *'yeah good'*. This is followed by a feedback comment or not.

Table 33 Examples of *Check Comprehension Feedback sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	okay well if you do think of any then ask them to your small group tutors okay	LSLCT14
2.	Good	PSLCT10
3.	yeah good don't worry about it i'm not going to ask you complicated questions i'm not going to pick on you er it doesn't	SSLCT13

5.5.7 The Refer to Visual sub-function

As lectures are also conducted with visual aids such as overhead projectors or slide projector or Smart Boards to support students to write notes and help provide structure for the lecturer, references to visuals is naturally expected to be found in lectures. Seen in Table 34, there can be reference to the visuals referred to as '*board*' (item 1), '*screen*'(item 2) or '*picture*'(item 3). However, the reference can be sometimes implied as seen in item 4 where there is no reference to any visual in item. This example reinforces the importance of both viewing the video recording and reading the transcripts as by reading the transcripts alone, it would be very hard to determine that the lecturer was referring to the white board.

Table 34 Examples of *Refer to Visual sub-function* in the Lecture Introduction corpus

	Extract	Lecture
1.	er and they're all listed on this board here er which i will leave up for you to look at later on perhaps if you need to	LSLCT10
2.	oh yes suddenly the screen and the bulb's gone	SSLCT38
3.	right so this is a picture of Edward Thompson er at a peace movement rally in nineteen-eighty-one i think er in Trafalgar Square	AHLCT23
4.	er there are various other things that one could have maybe thought about but er i'll put down er almost a kind of summary of the lecture	PSLCT06

5.6 Example of move structure of the lecture introduction

This section revisits and exemplifies the move structure of the lecture introduction in Chapter 1 in illustrating how lecturers use different functions and sub-functions in delivering lecture introductions. Although this exemplar precedes the chapter of discussion of results, this section shows typically the use of sub-functions a lecturer uses which is an interweaving of all three sub-functions, and that some functions are also repeated.

Table 35 Example of move sctructure of lecture introduction *LSLCT038*

1.	Function	Sub-function	Text
2.	Listener Orientation	Greeting	Welcome
3.	Set Up Lecture Framework	Announce Topic	today we're talking about communication skills
4.	Put Topic in Context	Show Importance	it's the core part of what you learn if you want to become a doctor ninety-five per cent of doctors spend most of their days talking to people one way or another ninety-eight per cent of doctors have to be able to consult even if you're a pathologist you have to talk to the relatives of the people you cut up and you have to be able to talk to other doctors as well so this is absolutely crucial
5.	Set Up Lecture Framework	Outline Scope	now one of the first things about communication skills that we teach you all is that first of all you should introduce yourselves
6.	Put Topic in Context	Show Importance	and so we're going to introduce ourselves because in the next few years you're going to become fairly familiar with all these names that are in front of you here and we thought we'd give you this opportunity to find out who we are
7.	Set Up Lecture Framework	Indicate Scope	and we're all going to introduce ourselves to you so that all of you will be taught by us probably most of us before you qualify even if not directly in the next few months so we thought you'd like to know who we are

Seen in Table 35, the move analysis of the medical lecture introduction *LSLCT038* on 'Developing Interview Skills in the Consultation' in Table 1.1 consists of all 3 main sub-

functions in the Lecture Introduction Framework. The lecture consists of 6 sub-functions which starts with the lecturer orientating the students to the lecture the *Greeting sub-function*. It has to be noted that this move is fairly uncommon in the data which can be explained by the power distance between the participants as discussed in section 5.5.1 which adheres to Brown and Levison's (1978) Face Threatening Act theory. By actually greeting the students, this lecturer seems to be making a conscious decision to friendly to create rapport with students.

The lecturer then sets up the lecture framework by the second sub-function and takes the students straight to the topic with *Announce Topic sub-function*. This sub-function is realised by the phrase "*Today we are talking about + topic*", where the use of "*we*" suggests that the lecture is a common aim for all participants, even though the person who is doing most or nearly all of the talking is the lecturer. This can be seen as a means by which the lecturer is trying to bridge the distance between lecturer and students and create rapport between them.

Next the lecturer puts the lecture into context by the third sub-function of *Show Importance sub-function* which reinforces to the students the importance of communication skills in their disciplinary domain and its future. The lecturer actually gives three different examples of why the lecture topic is important for the students in stressing how important the topic is. The words "*absolutely crucial*" shows how the lecturer feels about the importance of the topic.

The fourth sub-function goes back to the lecturer setting up the lecture framework with *Outline Scope sub-function*. The lecturer tells the students that the first thing that is taught about communication skills is for them to introduce themselves.

For the fifth function the lecture puts the topic in context again with is *Show Importance sub-function* again. This time the importance of the lecture for the students again focuses on

being introduced to the lecturers who teach the course for the academic year and in the department. This importance is implied through the phrase *"we thought we'd give you this opportunity to find out who we are".* This "opportunity" on behalf of the lecturer is an example of use of Brown and Levinson's (1978) negative face where the want of every competent adult member that his/her actions be unimpeded by others. This is a ritualised negative politeness where there is no real imposition on the students and that it has purpose of building and maintaining relationships.

The sixth function is *Indicate Scope sub-function* where the lecturer indicates that the lecture will contain introduction from lecturers who will be teaching them on their course.

This is followed lastly by *Show Importance sub-function*, the third time in the lecture but is a repetition of the second one of getting to know the lecturers who are going to teach them on their course over the year and to come. This is again implied through the *phrase "we thought you'd like to know who we are"*. Again, this ritualised negative politeness hopes to maintain good rapport and establish good relationships with students.

5.7 Chapter summary

To conclude this chapter, I have reviewed Thompson's (1994) Lecture Introduction Framework and adjusted it in accordance with the data from the Lecture Introduction Corpus. This resulted in the revised Lecture Introduction Framework proposed in section 5.1 whereby additional sub-functions have been added to the framework where it occurs at least ten times across all disciplines in the corpus.

The study has retained the *Set Up Lecture Framework function* and its three sub-functions of *Announce Topic, Indicate Scope and Outline Scope* sub-functions. However, for

the *Putting Topic Into Context function,* additional two sub-functions (*Recap Earlier lecture sub-function* and *Refer to Future sub-function)* have been added to the original three sub-functions *Show Importance, Relate New to Given and Refer to Earlier Lecture sub-function.* Also added to the original framework is another main function called *Listener Orientation function* alongside its seven sub-functions *Greeting, Announcement, Introduce Oneself, Refer to Handout, Check Comprehension, Check Comprehension Feedback and Refer to Visual sub-function.* The importance of this main function whereby the lecturer refers to other matters related to the listener has been acknowledged in other academic speech genres researched by Dubois (1980) and Rowley-Jolivet and Carter-Thomas (2005).

I have also discussed the criteria for the identification of these three main functions with the corresponding fifteen sub-functions found in the corpus and related the functions to the communicative purposes it realises with examples found in the corpus.

Finally I have presented an illustration of how I applied the framework for analysis. Results of the analysis of function types and configurations of the lecturers' rhetorical strategies according to disciplinary domains are discussed in the following chapter.

CHAPTER 6 DISCUSSION OF GENRE ANALYSIS RESULTS

6.1 Introduction

This chapter is divided into two parts. The first part deals with the results of the genre analysis of the eight-nine lecture introduction sections according to their disciplinary domains. The second part of the chapter deals with the configurations of the lecture functions formed by the different disciplinary domains in seeking disciplinary differences. It however has to be highlighted that discussion on disciplinary differences is limited to Becher's (1987) model of disciplinary cultures and subsequent work of Neumann and Becher (2002) and Brown and Bakhtar (1988) as the only research this study has found which gives a description of the disciplinary culture and characteristics of university disciplinary domains and the latter, with lecturer teaching styles (see section 2.4.1 and 2.4.2). It however can be argued that the rhetorical strategies revealed by the different disciplines support previous research on how disciplinary domains typically present, justify and evaluate their findings.

6.2 Frequency and distribution of functions in the Lecture Introduction framework.

This section presents the findings and discussion of genre analysis of the functions and sub-functions that realise the Lecture Introduction Framework. The following section will deal with the results of each of the 15 sub-function in order of frequency in the Lecture Introduction Framework.

The disciplinary domains are presented in line with the BASE Corpus categorisations of its lectures into four high-level groupings: Arts and Humanities, Life Science, Physical Science and Social Science. The corpus compilers claim that the system has the merit of

allowing some degree of comparability between corpora as MICASE also has the same broad categorisation) and is broad enough to accommodate many university modules which might straddle more highly specified groupings (Nesi et al., 2005).

It is important to note that following the claim that the categorisation of the lectures are broad in nature, Becher (1987)'s disciplinary groupings (see section 2.4.1) is seen in this study as only partially matching the different domains in the BASE Corpus. The BASE Corpus's Arts and Humanities lectures can be seen as 'soft-pure' discipline and Social Science as 'soft-applied' discipline. However, a closer examination on lecture subjects and lecture topics in the Lecture Introduction Corpus (see Appendix III) reveals that the Physical Science categorisation has a mix between what can be considered hard-pure discipline subjects (e.g. Chemistry, Physics) but also hard-applied discipline subjects (e.g. Engineering) and soft-applied subjects (e.g. Computer Science, Economics and Statistics). The Life Science lectures can be considered to be hard-applied discipline as it mainly is regarding Medical lectures.

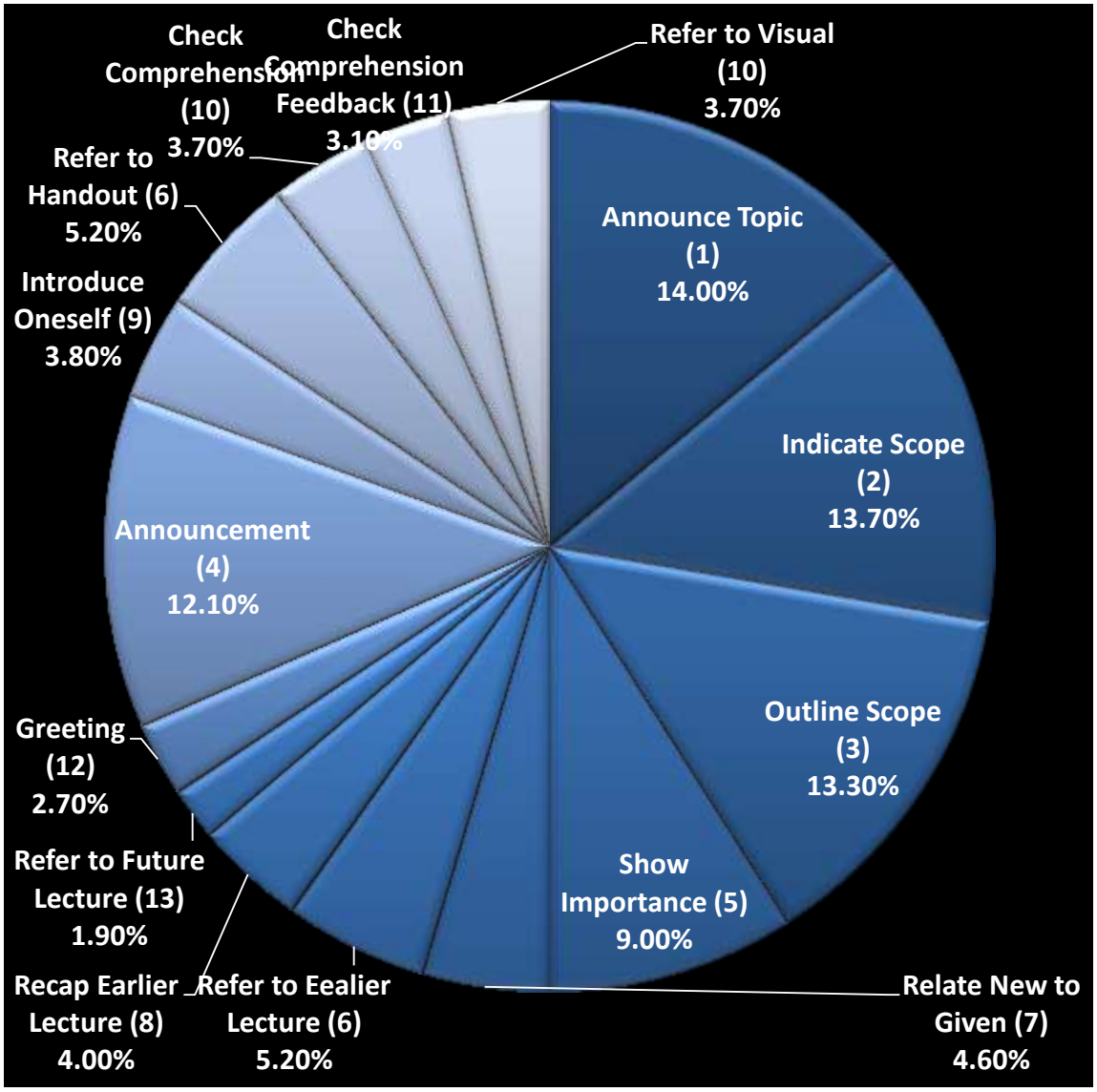
Table 36 presents the raw frequency and percentage of functions and sub-functions in the four disciplinary domains.

Table 36 Raw frequency of functions and sub-functions in the four disciplinary domains

Sub-Function	LS	AH	SS	PS	Total	Position
Announce Topic	21	16	17	19	73	1
Indicate Scope	30	19	16	6	71	2
Outline Scope	21	17	21	10	69	3
Show Importance	17	11	15	4	47	5
Relate New to Given	9	6	8	1	24	7
Refer to Earlier Lecture	9	4	7	7	27	6
Recap Earlier Lecture	4	5	3	9	21	8
Refer to Future lecture	1	3	5	1	10	13
Greeting	6	6	1	1	14	12
Announcement	22	21	9	11	63	4
Introduce Oneself	12	4	4	0	20	9
Refer to Handout	7	10	7	3	27	6
Check Comprehension	6	3	5	5	19	10
Check Comprehension Feedback	3	3	3	5	16	11
Refer to Visual	11	5	2	1	19	10
Total	179	133	123	83	520	
Number of lectures per discipline	30	25	20	14	89	

Key:	**LS = Life Science** **AH = Arts and Humanities** **SS = Social Science** **PS = Physical Science**

Figure 17 Pie chart of percentage of all sub-functions in BASE Lecture Introduction Corpus



The following section discusses the functions according to frequency in The Lecture Introduction Corpus as seen in Figure 19. However, when comparing disciplinary results, it is essential to take into account the different sizes of the different sub corpora (Hoffmann et al., 2008). Usually in corpus linguistics, the corpus analyst compares tokens/words in a corpus and this can be done by choosing specific number as basis for comparison (for example 10,000, or 1,000,000). This procedure results in a normalised frequency. However, this part of the study compares the frequency of functions and the arithmetic used to arrive at the

normalised frequency in this study is presented below, with 10,000 words chosen as the basis of comparison:

$$\text{Frequency per 10,000 words} = \frac{\text{number function in discipline}}{\text{number of tokens in sub corpora}} \times 10{,}000$$

Normalised frequency per ten thousand words is calculated by dividing the number of lectures containing the function by the number of tokens in the sub corpora and multiplying the result by 10,000. I will use this method of normalising frequency in my analysis of corpus data. The number of token used as comparison is 10,000. The results can be seen in Table 37.

Table 37 Normalised frequency of functions occurring in 10,000 words according to disciplines

	SOCIAL SCIENCE		**PHYSICAL SCIENCE**		**ARTS AND HUMANITIES**		**LIFE SCIENCES**	
Sub-function / Token	**Sub corpus 17,449**	**10,000**	**Sub corpus 4,663**	**10,000**	**Sub corpus 11,604**	**10,000**	**Sub corpus 11,589**	**10,000**
Announce Topic	17	9.7	18	38.6	16	13.8	21	18.1
Indicate Scope	16	9.2	6	12.9	19	16.4	30	25.9
Outline Scope	21	12	10	21.4	17	14.7	21	18.1
Show Importance	15	8.6	4	8.6	11	9.5	17	14.7
Relate NEW to GIVEN	8	4.6	1	2.1	6	5.2	9	7.8
Refer to earlier lecture	7	4	7	15	4	3.4	9	7.8
Recap earlier lecture	3	1.7	9	19.3	5	4.3	4	3.5
Refer to future lecture	5	2.8	1	2.1	3	2.6	1	0.9
Greeting	1	0.6	1	2.1	6	5.2	6	5.2
Announce-ment	9	5.2	11	23.6	21	18.1	22	19
Introduce oneself	4	2.3	0	0	4	3.4	12	10.4

Refer to handout	7	4	3	6.4	10	8.6	7	6
Check Comprehension	5	2.9	5	10.7	3	2.6	6	5.2
Check Comprehension feedback	3	1.7	5	10.7	3	2.6	3	2.6
Refer to Visuals	2	1.1	1	2.1	5	4.3	11	9.5

6.2.1 Number 1 function: The *Announce Topic sub-function*

The *Announce Topic sub-function* is the most frequent sub-function with the highest percentage of 14% (73 out of a total of 520 occurrences). Of all sub-functions, it is logical to presume that this sub-function could possibly be the one sub-function used by all lecturers in a lecture. If we think of an academic genre like the research article, one would expect to be told the topic or title of the article which would headline the article. The results show that it occurs in all of the disciplinary domains but not in all of the lectures. This means that we cannot say that it is a compulsory function, thus dismissing the idea that this genre has a set of compulsory sub-functions to be performed.

The Physical Science discipline uses the Announce Topic sub-function the most with a normalised frequency of 38.6 per ten thousand words, followed by Life Sciences with 18.1 per ten thousand words, Arts and Humanities with 13.8 per ten thousand words and Social Science with 9.7 per ten thousand words. The use of *Announce Topic sub-function* by the Physical Science discipline, which is when lecturers tell the students what the lecture topic is, reflects the well organised nature of the pure hard discipline (Becher, 1994).

6.2.2 Number 2 function: The *Indicate Scope sub-function*

The *Indicate Scope sub-function* is the second most frequent sub-function with the percentage of 13.7% (71 out of a total of 505 occurrences). This sub-function, although at number two position is only two occurrences less than the first most frequently occurring sub-function.

The *Indicate Scope sub-function* is one of the three sub-functions of the *Set Up Lecture Framework* function which implies that lecturers have a tendency to devote some time in the lecture introduction to prepare students for the different components in the lecture and gives some description of how much depth of coverage is devoted to the component to be talked about.

This sub-function is used most by Life Science discipline with a normalised frequency of 25.9 per ten thousand words which supports Becher (1994)'s description of this disciplinary culture which amongst other qualities is its 'purposive' nature of knowledge, which sees how different parts of knowledge are dealt with. However, this sub-function is also used frequently by Arts and Humanities with a normalised frequency of 16.4 per ten thousand words. Although at opposite ends of the pure-applied/soft-hard classification, the high use of this sub-function can be seen as reflecting its nature which is concerned with particulars and qualitiees (Ibid. 1994, pg.154).

6.2.3 Number 3 function: The *Outline Scope sub-function*

This sub-function is the second highest occurring sub-function with 13.3% (69 out of a total of 520 occurrences). The difference of 0.4% between *Outline Scope sub-function* and *Indicate Scope sub-function* can be considered a marginal difference of these two sub-functions of *Set Up Lecture* functions.

The *Outline Scope sub-function* is used the most by the Physical Science discipline with a normalised frequency of 21.4 per ten thousand words. This sub-function is also used by the Life Sciences with a normalised frequency of 18.2 per ten thousand words, Arts and Humanities with a normalised frequency 14.7 per ten thousand words and Social Sciences with a normalised frequency of 12 per ten thousand words in its lecture introductions.

This sub-function alongside *Indicate Scope* and *Announce Topic sub-function* concludes that all the *Set Up Lecture Framework functions*, which orientate the lecture-as-object towards audience, are considered important by lecturers in lecture introductions.

6.2.4 Number 4 function: The *Announcement sub-function*

This sub-function is the most frequently occurring *Listener Orientation function* in the list. It has to be noted again that Thompson (1994) did not feel it was necessary to include this function in the original study. The total use of 63 occurrences, which is only 6 occurrences below that of the third most frequent sub-function suggests that it is as important as the top three sub-functions.

Announcements in lectures are used the most by the Physical Science discipline with a normalised frequency of 23.6 per ten thousand words. The use in the other disciplines is also similar with a normalised frequency of Life Sciences with 19 per ten thousand words, Arts and Humanities with 18.1 per ten thousand words and Social Science with 5.2 per ten thousand words. The broad topics of the announcements in the Lecture Introduction Corpus range from seating, accommodation, assignments, assessments, reading lists, university clubs and even socials.

6.2.5 Number 5 function: The *Show Importance sub-function*

This sub-function occurring at number five with 9% of the total sub-functions in the corpus is used comparatively equally among the disciplines with a normalised frequency of 14.7 per ten thousand words in Life Science and in the Arts and Humanities discipline with 9.5 per ten thousand words . It occurs with a normalised frequency of 8.6 per ten thousand words in the Physical and Social Science discipline.

In relation to Neumann and Becher's (2002) description of the different disciplines, the high frequency in Life Science which can be seen as a pure-applied discipline, which is described as purposive and pragmatic (how-how via hard knowledge) in nature. This suggests that showing importance of knowledge as to reflect future use. This can also explain the high numbers in For Arts and Humanties, which can be seen as a pure-soft discipline, the *Show Importance sub-function* relates to what Becher (1994, pg.154) claims as a discipline which is 'reiterative and concerned with particulars'.

6.2.6 Joint at number 6 function: The Refer to Earlier Lecture sub-function and Refer to Handout sub-function

The *Refer to Earlier Lecture* sub-function occurs highest in the Physical Science discipline with a normalised frequency of 15 per ten thousand lectures. Physical Science being a pure-hard discipline is very organised and knowledge is built up from previous knowledge which is reflected in the use of this sub-function. This agrees with Kreber and Castleden (2009) citing Cranton (1998) and Cross (1991) who claim that generally hard fields of discipline have shown to be concerned mostly with the transmission of instrumental knowledge, while soft fields focus on communicative knowledge which encourages personal enrichment

The *Refer to Handout sub-function,* also occurring at joint number six highlights the importance of handouts as seen by lectures in supporting lectures. It is the second highest sub-function of *Listener Orientation function* in the list. It is used the most by Arts and Humanities discipline with a normalised frequency of 8.6 per ten thousand words. The relatively high use of handouts and reference to it in the Arts and Humanities discipline contradicts with Neumann and Becher (2002, p.412) claim that 'content summaries on handouts or on overhead projectors are rare in soft-pure disciplines'. However, as they also claim that this discipline typically involves reading of vast volumes of reading which encourages the development individual interpretation, then it could be possibly be that the handouts contain summaries of these readings or references towards these readings for follow up work after the lectures.

6.2.7 Number 7 function: The Relate New to Given sub-function

At number seven is the *Relate New to Given* sub-function with 4.7 % (24 of 520 sub-functions). The *Relate New to Given* sub-function occurs highest in Life Sciences discipline with a normalised frequency of 7.8 per ten thousand words, in the Arts and Humanities with a normalised frequency of 5.2 per ten thousand words and Social Science with a normalised frequency of 4.6 per ten thousand words. Relating previous knowledge to new is an example of what Jones (2009) sees as am emphasis of lecturers in the Social Science and Arts and Humanities on students ability to assess different approaches and engage in discussion.

6.2.8 Number 8 function: The Recap Earlier Lecture sub-function

The *Recap Earlier Lecture sub-function* is the longer and more comprehensive version of *Refer to Earlier Lecture sub-function* and is most used by the Physical Science discipline with a normalised frequency of 19.3 per ten thousand words. The nature of this discipline which systematically builds on previous knowledge and is concerned with the transaction of instrumental knowledge requires that students are familiar with the background knowledge that precedes the lecture topic. This is in contrast with the other disciplines with occurring with a normalised frequency of 4.3 per ten thousand words in Arts and Humanities, 3.5 per ten thousand words in Life Science and 1.7 per ten thousand words in Social Science.

6.2.9 Number 9 function: The Introduce Oneself sub-function

The *Introduce Oneself sub-function* occurs highest in Life Science with a normalised frequency of 10.4 per ten thousand words and in contrast, did not occur at all in our data for the Physical Science discipline. Besides first lectures, the *Introduce Oneself sub-function* does not normally occur in lectures as it is normally happens when meeting someone for the first time. However, Life Sciences is a discipline in which working professionals from the discipline are often invited over as guest lectures or teach parts of the course, and therefore it could said that this is common practice in this discipline where lecturers are considered “clinical teachers” or “professional teachers” (McLean et al., 2008).

6.2.10 Joint at number 10 function: The Check Comprehension sub-function and Refer to Visuals sub-function

Joint at number ten of fifteen sub-functions is the *Check Comprehension sub-function* and *Refer to Visual* sub-function with 3.7% (19 of 525 sub-functions). *Check Comprehension sub-function* occurs the most in the Physical Science with a normalised frequency of 10.7 per ten thousand words. Relating this with the high frequency of the *Recap Earlier Lecture sub-functions* (number 6) and the *Refer to Earlier Lecture sub-function* (number 8), it can be claimed that lecturers in the Physical Science disciplines feel the need to check and make sure students have understood what has been taught before moving on to the next part of the lecture.

The *Refer to Visual sub-function* is used the most by Life Sciences with a normalised frequency of 9.5 per ten thousand words. Following that is Arts and Humanities with a normalised frequency of 4.3 per ten thousand words, Physical Science 2.1 per ten thousand words and Social Science with 1.1 per ten thousand words.

Previous research on the link between disciplinary difference and the use of visuals like digital resources have suggested that the use of digital resources are significantly related to the subject and discipline area. However the research was not focused on lecture introductions, but in general teaching in the disciplines which could include other methods of teaching.

As with the present study, Kemp and Jones's (2007) groupings of disciplines does not fall neatly within Becher's (1994) taxonomy (see section 2.4.1). They observed was that there is a hard and soft divide where hard disciplines like Physics and Engineering display a distinctly different relationship to digital resources based on their need for mathematical skills

and a mastery of a software and exposure to images and simulations within these subjects. Within the soft disciplines the use varies widely where History and Law has access to a large database of digital data but Music has restricted us due to copyright restrictions. However, there is no clear evidence of division between pure and applied subjects in relation to digital resources. This is useful in explaining our results of the highest use of *Refer to Visual sub-function* is the Life Science discipline with a normalised frequency of 9.5 per ten thousand words but very low for Physical Science with a normalised frequency of 2.1 per ten thousand words, even though both are science disciplines. However, the 'soft disciplines' of Arts and Humanities use it with a normalised frequency of 4.3 per ten thousand words while Social Sciences with 1.1 per ten thousand words. This agrees with Kemp and Jones's (1997) observation that science disciplines don't necessarily refer more to visuals than soft disciplines.

6.2.11 Number 11 function: The Check Comprehension Feedback sub - function

What is interesting about the use of this sub-function is that the Arts and Humanities and Physical Science discipline, gave 100% feedback to the *Check Comprehension sub-function* performed beforehand. This contrasts with other disciplines in which did not always provide feedback to comprehension check questions. It is important to consider that the feedback counted are verbal responses and that non-verbal responses might be missed although video recordings were watched to establish responses were given which can account for the feedback numbers.

The divide of use between both disciplines provides as a justification for having two separate functions which the *Check Comprehension Feedback sub-function* when occurs in a lecture, always comes after *Check Comprehension sub-function*.

6.2.12 Number 12 function: The *Greeting sub-function*

Despite the fact that the beginning of a conversation will generally involve an exchange of greetings (Wardhaugh, 2011), the *Greeting sub-function* only occurs 14 times in 89 lectures out of 520 sub-functions with 2.7% in the Lecture Introduction Corpus. For example, in a telephone conversation people normally say 'Hello', a meeting between strangers may require an exchange of 'How do you do' followed by self-identification while a meeting between intimate acquaintances may have their own ritualistic beginnings. This is all prescribed by cultural settings and rules, and in the case of this study, the academic culture. The results suggest that greetings are not necessary in lecture introductions. Even though greetings are a part of routine in conversations and suggests politeness between participants, the lack of it in the Lecture Introduction genre can be attributed to the power-distance relationship between lecturer and students and the fact that a lecture is not really a conversation but mostly a monologue. When it occurs in the lecture introduction it is always at the very beginning of a lecture or when a new lecturer takes over the lecture after been introduced, especially in the Life Sciences.

This sub-function occurs highest in Arts and Humanities (six times in five lectures of a total of twenty five lectures) and Life Sciences (once in six lectures of a total of thirty lectures) with a normalised frequency of 5.2 per ten thousand words. Life Sciences discipline has shown the use of different clinical lecturers introduced in their courses as evidenced with

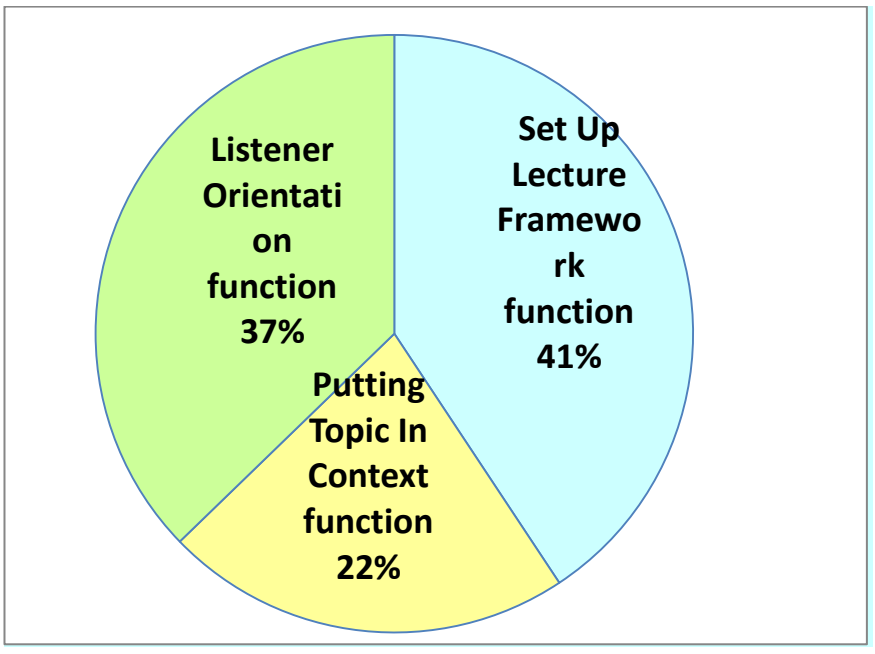
the results of the use *Introduce Oneself sub-function*. This contrasts with the use in Social Science discipline with a normalised frequency of 0.6 per ten thousand words (once in twenty lectures) and Physical Science discipline with 2.1 per ten thousand words (once in fourteen lectures).

6.2.13 Number 13 function: The Refer to Future Lecture sub-function.

The *Refer to Future Lecture sub-function* occurs highest in Social Science discipline with a normalised frequency of 2.8 per ten thousand words . The use of this sub-function shows that lecturers are linking the present lecture and placing it in relation to future lectures more than in other disciplines whereby in other disciplines it occurs with a normalised frequency of 2.6 per ten thousand word in Arts and Humanities, 2.1 per ten thousand words in Physical Science and 0.9 per ten thousand words in the Life Sciences.

6.3 Most frequent main function of the Lecture Introduction Framework

Figure 18 Percentage of functions in Lecture Introduction Corpus



In terms of main functions, the *Set Up Lecture Framework* function is used the most by all disciplines with 41% of total use of functions. This result suggests that lecturers are actually preparing the audience towards what the lecture topic and content, which will hopefully aid them in their listening. As seen in Figure 20, frequent sub-functions in the whole of the corpus are the three *Set Up Lecture Framework* sub-functions which are *Indicate Scope* sub-function, 70 times; followed by *Outline Scope* sub-function,68 times and *Announce Topic* sub-function, 63 times.

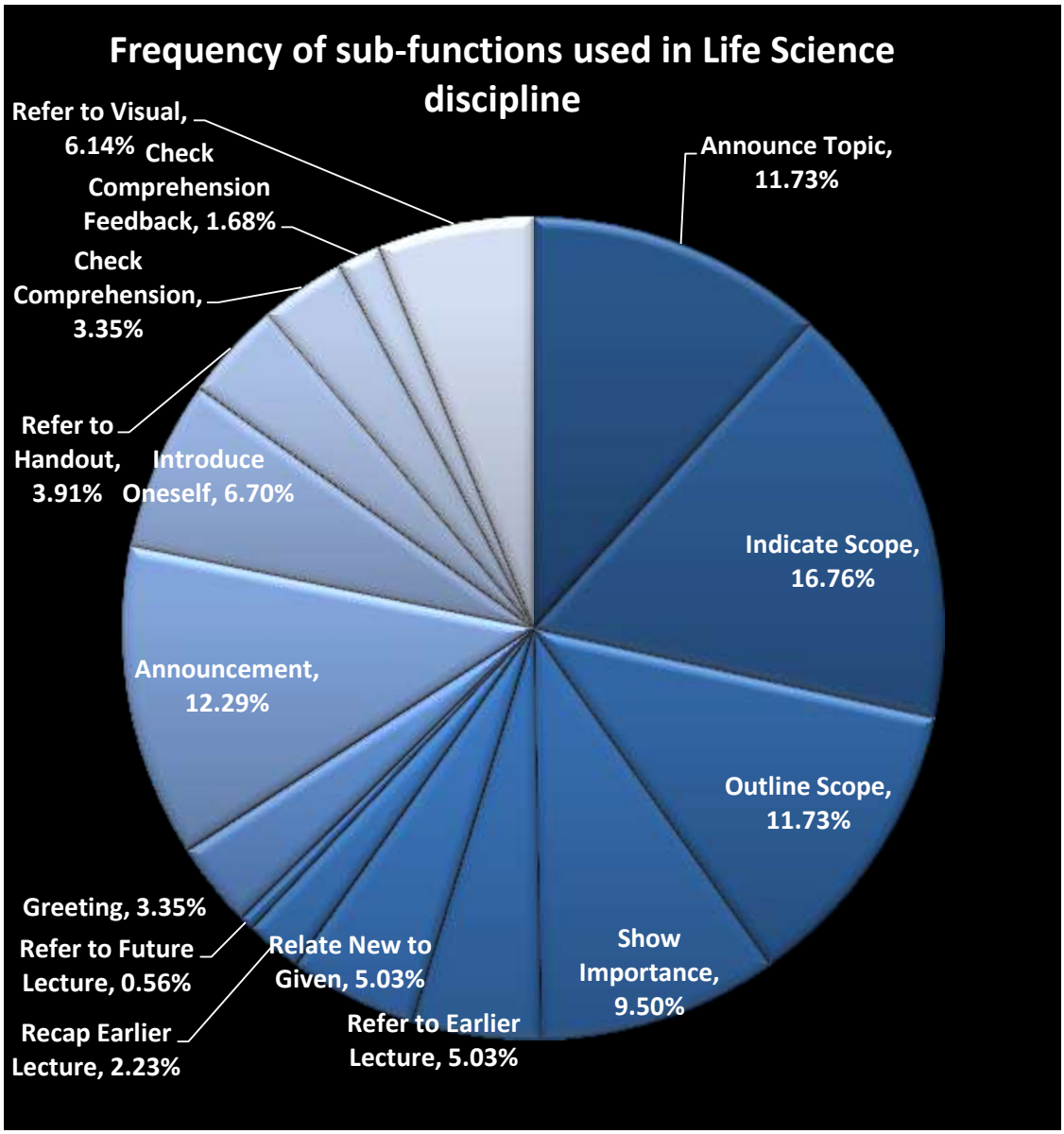
The second most used function is the *Listener Orientation function* with 37%. As mentioned previously, Thompson (1994,p.177) claims that "listener orientation in lectures is not a feature of lecture introductions only, and may occur at any point throughout a lecture" and therefore excluded it from her study but my own argument that anything that a lecturer wishes to say during the lecture introduction should be analysed, as students need to be able to understand that too. As seen in Chart 6.2, the *Listener Orientation function* makes up to 37% of the total corpus, which is nearly equal to the most used function, *Set Up Lecture Framework function* of 41%.

Another possible reason for the frequency of *Listener Orientation function* could be that lecturers are exercising their pastoral care duties towards the students. This can be done through seven different sub-functions, which is double the number of the other two main functions. Lee (2009) argues, in large university classes from the MICASE corpus, lecturers will have to use various rhetorical strategies that communicate their concern for the students' academic success to create a positive learning environment which would be easier achieved in a small class. And seen in the sub-functions of *Listener Orientation function* in the Lecture Introduction Corpus, this is done in the lecture introduction corpus through making announcements, checking comprehension and giving feedback, greeting, introducing

themselves and reference to hand outs or visual. Also the BASE Corpus consists mainly of lectures for undergraduates and it can be argued that in order to ease the students' transition into the world of university academic community, the lecturer employs these rhetorical functions to make students feel welcomed and comfortable.

6.4 Disciplinary use of functions: Life Science

Figure 19 Pie chart of frequency of sub-functions used in Life Science discipline



For the Life Science lectures, the most frequent function is *Indicate Scope sub-function*, occurring 16.76%. In fact, this discipline produces the most sub-functions totalling to 179 of 520 of the whole corpus.

What is markedly different from the other disciplines is the high use of the *Listener Orientation functions* which are *Greeting (3.35%), Introduce Oneself (6.70%)* and *Refer to Visual sub-function (6.14%).* This is explained due to the nature of the lecturers who, unlike in other disciplines, are working professionals in the health sector who also teach or come in to guest lecture areas of their speciality. Therefore, the relationship between lecturer and student is different as the lecturer is often meeting the audience for the first time, and perhaps lectures only once throughout the course. Also this particular discipline appears to benefit from having the facility of using Interactive Whiteboards and projectors, and its use is perhaps compulsory within the department and recorded which could explain the frequency of the *Refer to Visuals sub-function*.

In the extract below from Life Science lecture *LSLCT021*, another lecturer is introducing the main lecturer of the day:

Extract *LSLCT021* (Note: namex is the lecturers name but anonymized).

Function	Sub-function	Text
Listener Orientation	Introduce Oneself	nm0309: so with that i shall introduce our next speaker Dr namex who's based at the undergraduate er Department of General Practice at namex University he is a senior lecturer in medical education and the clinical education lead within er the department of general practice
Set Up Lecture framework	Announce Topic	and namex is going to talk to us about the impact of a special study module on student attitudes namex

Listener Orientation	Greeting	nm0310: thank you

And it is also not unusual to have more than one speaker in a single lecture slot as seen in the extract from Life Science lecture *LSTLCT024*.

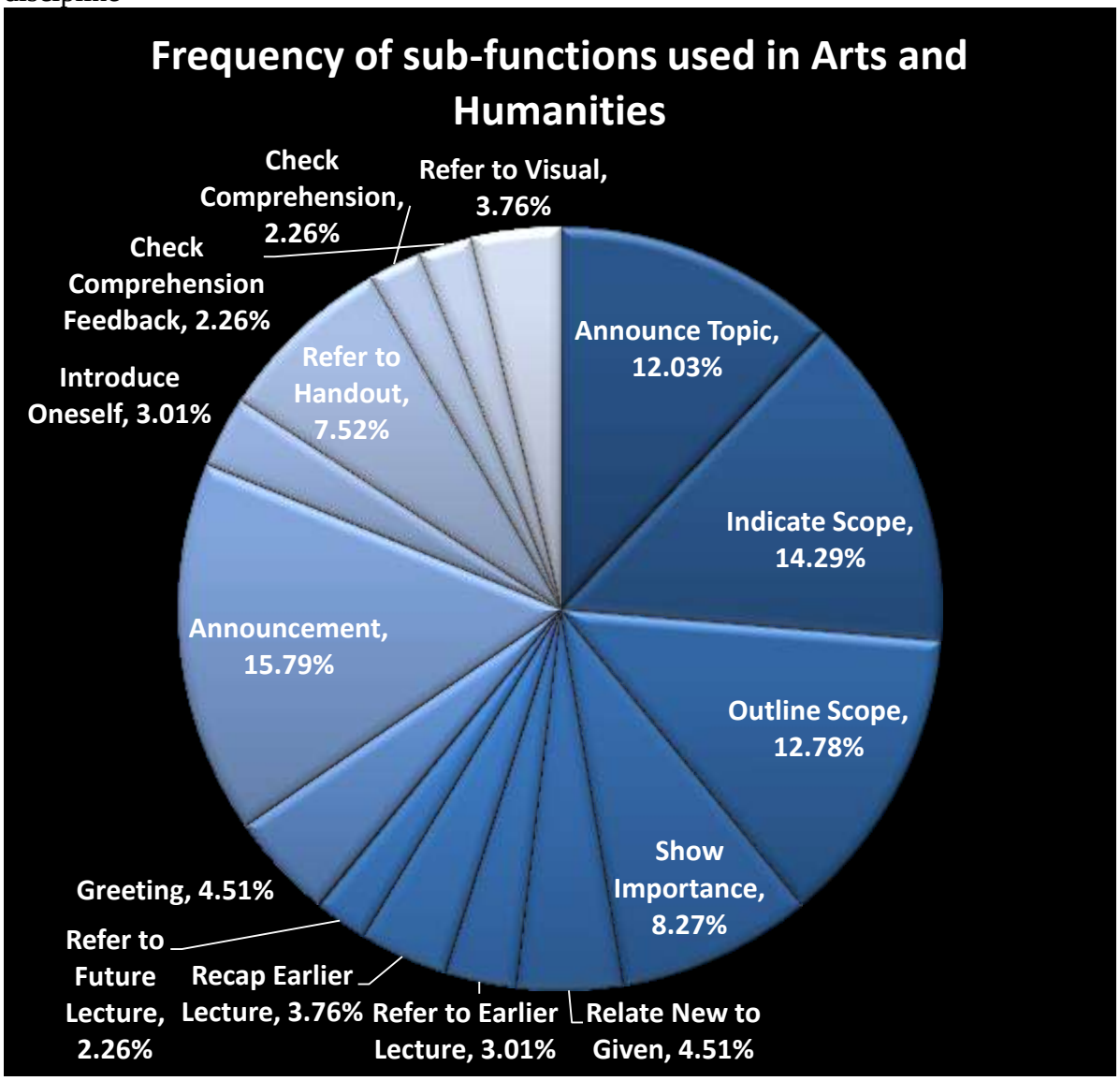
Extract LSLCT024

Function	Sub-function	Text
Listener Orientation	Announcement	er i i have been or-, dist-, did just distribute er evaluation sheets they're actually the ones that are used for the Master's in Medical Education course but please do fill these out as you go along what we would really like on the reverse of the sheet is some sort of text comments as well of of the day and whether you would like it repeated i was just talking to my colleagues from namex whe-, whether you would like one of the other sister universities perhaps to host the event next time 'cause i think people have appreciated the sort of the small group the other thing is i don't know if everybody's actually signed in has anybody not signed in can i just send this form round just nm0339: thank you nm0338: for for people to to sign in
Listener Orientation	Introduce Oneself	and introduce our next speakers we've got three speakers from namex University from the Department of Primary Care and General Practice Interactive Skills Unit er namex namex and namex as stated and they're going to talk to us about er consultation skills research thank you very much
Set Up Lecture Frame-work	Indicate Scope	nf0340: yes but fear not by the miracle of m-, rehearsal and careful timekeeping the three of us are going to present within the fifteen minute time slot [laughter] that's the challenge nm0348: nf0340: [laughter] we're doing [laughter] we're doing something for you that's er a little different from the previous presentations we're not doing er an in-depth presentation on a particular research ini-, initiative or methodology er what we thought might be interesting er if we've got an opportunity er while we've got a group of colleagues here from from different sides that we might just

		give you an overview of some of the research themes that we're looking at within the Interactive Skills Unit at the moment and that will be a very quick zip through er what's happening at namex er and then namex myself and namex will speak for just two or three minutes each er on our own personal favourite area of research er questions are welcome on anything that er we discuss and given that it is going to be a romp through a number of topics rather than an in-, in-depth

6.5 Disciplinary use of functions: Arts and Humanities

Figure 20 Pie chart of frequency of sub-functions used in Arts and Humanities discipline



For the Arts and Humanities lectures, the *Indicate Scope sub-function* is the most frequent sub-function with 14.29% of sub-functions used in the discipline. Whereas Life Sciences relies heavily on visuals, this discipline refers to its hand outs the most of all disciplines. *Refer to Handout sub-function* is 7.52% of the total sub-functions in this discipline.

The apparent frequent use of handouts in this discipline can be related to the disciplinary knowledge of Arts and Humanities being a 'soft-pure discipline' which is concerned with particulars, quantities and complication, together with understanding and interpretation of the subject matter (Becher, 1994). A wide reading of the literature is needed to participate in this discipline which can be linked to the use of handouts to support understanding as seen in the extract from Arts and Humanities lecture *AHLCT012*. The handout is mentioned as 'this'.

Extract *AHLCT012*:

Function	Sub-function	Text
Listener Orientation	Refer to Hand out	and the i will be talking with reference to this i may not actually quote it but afterwards you will be able to read this through and see the connections with what i've been talking about

Also used most compared to other disciplines is the *Relate New to Given sub-function*, with 4.51%. The 'Given' information does not necessarily have to be something that is universal or from previous lecture, but as seen in the example from Arts and Humanities lecture *AHLCT017,* can follow the *Refer to Visual sub-function* in which information has just been presented to students, hence, 'Given'. Extract from *AHLCT017*:

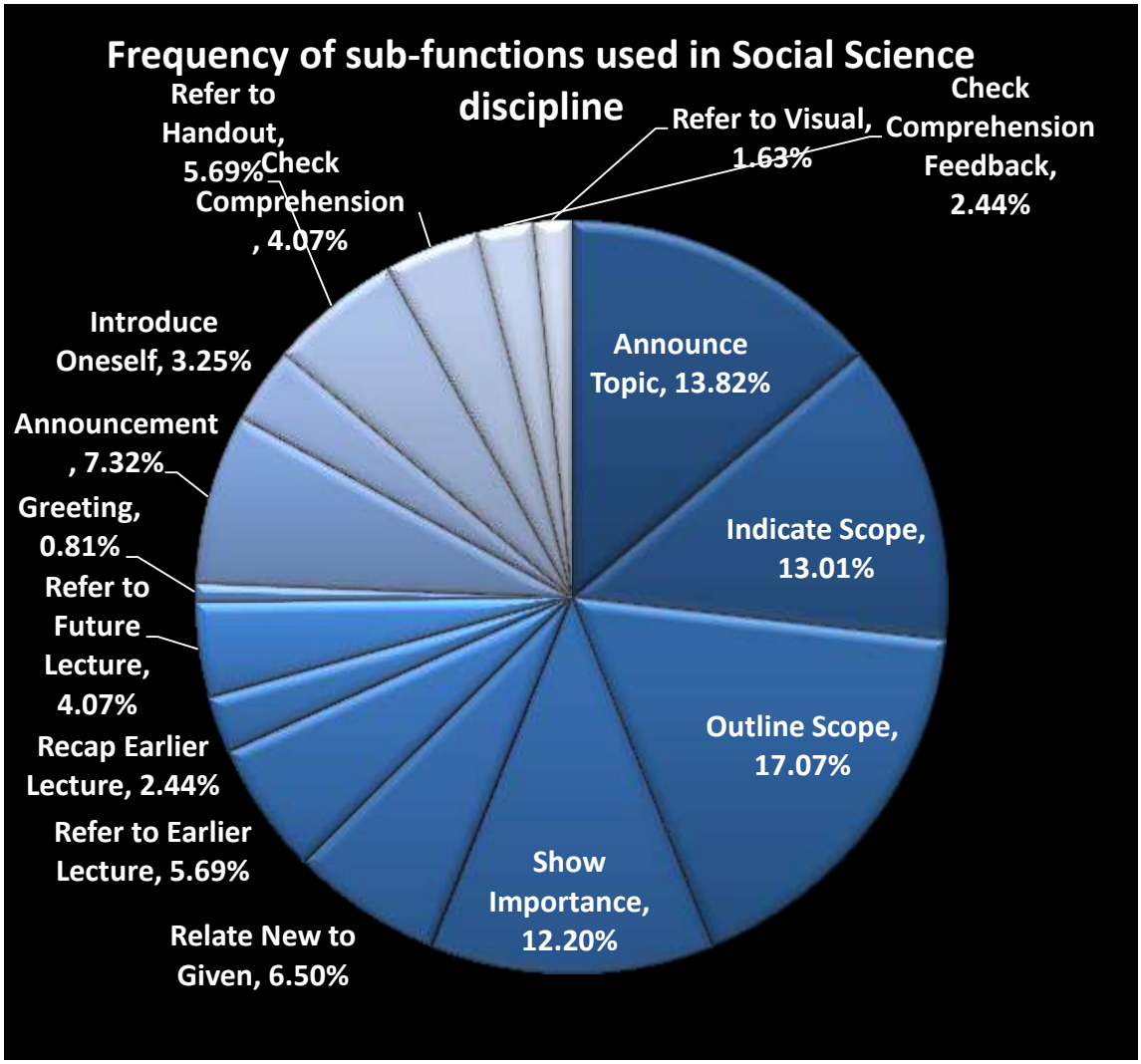
Function	Sub- Function	Text
Listener Orientation	Refer to Visuals	and if we briefly refer to er the first schema which is on the on the board er there's no need to copy this down actually but if you notice er on this schema it's a fairly basic and fairly er er inaccurate view really of what a a theatrical text actually consists of er in the particular th-, schema that you have er we begin with er the author who actually writes the play er and this obviously in turn leads to the text er the characters within the text er speak using language and that actually is received by the by the audience so it's a pretty sort of unilinear fairly er fairly sort of er uninteresting account of what actually happens in twentieth century plays
Putting Topic into Context	Relate New to Given	now er there are some problems with this

The use of this sub-function can be related to the nature of knowledge of Arts and Humanities, which according to Becher (1994) is concerned with understanding and interpretation of subject knowledge. By building on "given information", a lecturer can draw students into a discussion which leads to deeper understanding of the subject matter.

6.6 Disciplinary use of functions: Social Science

Compared to other disciplinary domains, the Social Science discipline only uses *Refer to Future Lecture sub-function* (5.43%) more than other disciplines. A closer examination of the reference and linking to future lecture also links to the next lectures, which is the short-term future.

Figure 21 Pie chart of frequency of sub-functions used in Social Science discipline



The *Refer to Future Lecture sub-function* occurs highest in this discipline compared to others. Seen in extracts *SSLCT025* and *SSLCT029*, the lecturer gives reasons why certain topics are covered in the lecture, which can be seen as relating to the overall aim of enhancement of knowledge to become successful students.

Example of Refer to Future Lecture sub-function in SSLCT016

Function	Sub- Function	Text
Putting Topic in Context	Refer to Future Lecture	because we're going to be discussing policy in seminars er the lectures i'm going to give you are going to focus very much on the law er and i suppose i will be perhaps holding back from policy issues what this means of course is that you mustn't assume that all the answers to next week's seminar are to be found in today's lecture er today's lecture is going to give you some of the material for next week's seminar but you're going to have to go further er in the reading which we provide for you and indeed in your own thoughts right prostitution and the law

Of all the sub-functions used by the Social Science discipline itself, the *Outline Scope sub-function* is used the most with 17.07%. The discipline's second most used sub-function is *Announce Topic sub-function* with 13.82%. Third is *Indicate Scope sub-function* with 13.01%.

While there are uses of the other sub-functions, the absence of *Refer to Visuals sub-function*, which is rather unusual, considering the facility of Interactive Whiteboards or projectors readily available at university. However this is only based on analysis of lecture introductions and not reflecting the whole lecture.

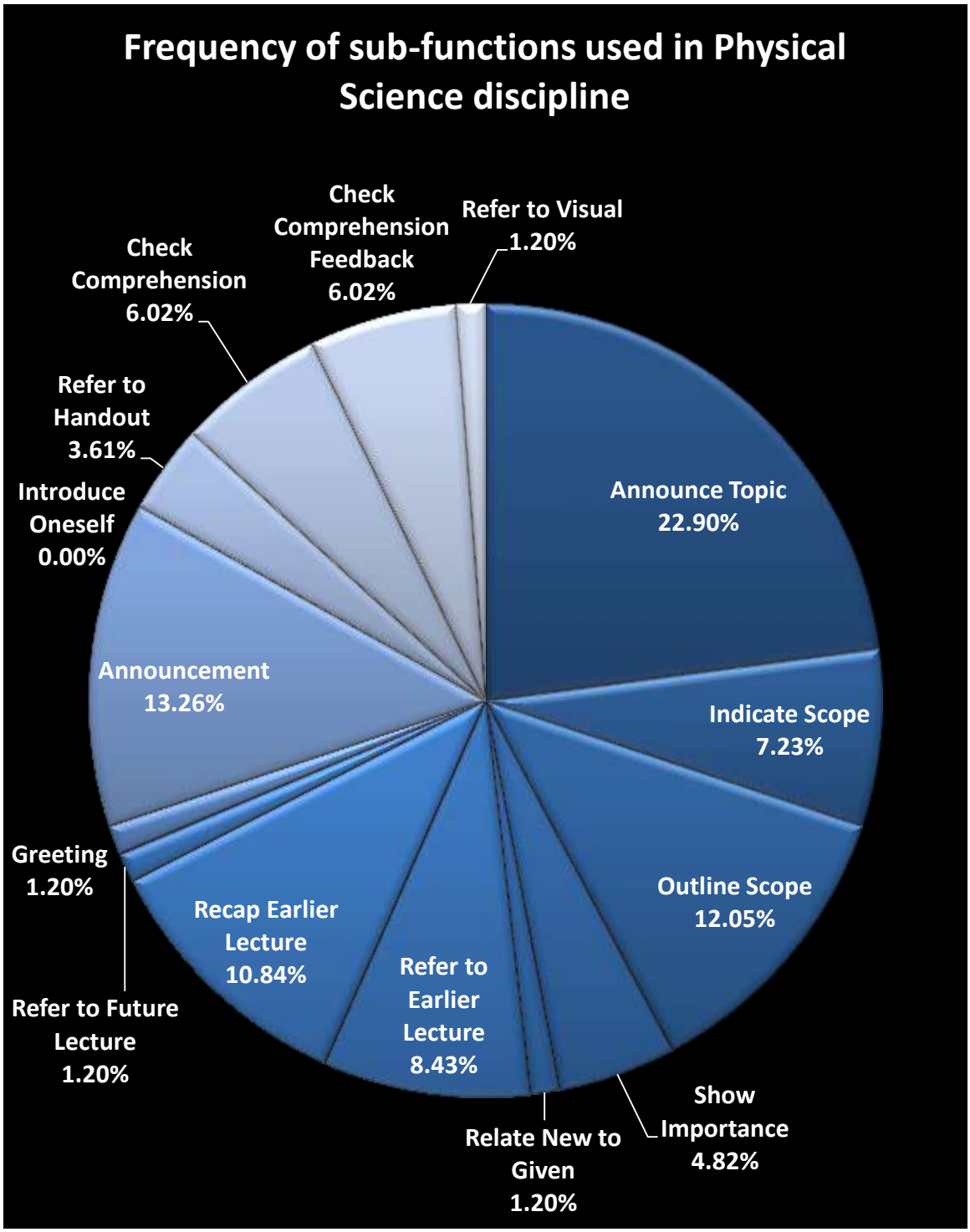
6.7 Disciplinary use of functions: Physical Science

Compared to other disciplines, Physical Science's most frequently occurring sub-function is *Recap Earlier Lecture sub-function* accounting for 10.84% of the total sub-functions used in

this discipline. *Recap Earlier Lecture sub-function* involves the lecturer actually gives a summary and further details of what was lectured previously, as opposed to *Refer to Earlier Lecture sub-function* which merely mentions it. The use of *Refer to Earlier Lecture sub-function* of 8.43% is also higher than other disciplines. This is more than double the use in other disciplines which relates to the nature of this discipline where topics are an extension of what has been recently taught. This suggests that the discipline builds upon previous lectures, which can be seen as in Becher's (1994) description of the nature of knowledge of 'pure-science' disciplines, as 'cumulative'. The study of Shamsudin and Ebrahimi (2013) also found that their *Reviewing earlier lecture* step (similar to my *Recap Earlier Lecture* sub-function) has been used the most in their corpus of Malaysian engineering lectures.

As with the other disciplines, there is a high use of *Set Up Framework Lecture function*, with *Announce Topic sub-function* (22.90%). Also occurring higher than other disciplines are sub-functions from Listener *Orientation function: Check Comprehension* and *Check Comprehension Feedback sub-function* (6.05% each). However, there is an absence of *Introduce Oneself sub-function* suggesting that this discipline is normally taught by a familiar lecturer. However, a possible reason for this could be the time of academic year of recording the lecture. Most probably a session in the beginning of the year for the class of first year undergraduate students would contain an introduction from the lecturer.

Figure 22 Pie chart of frequency of sub-functions used in Physical Science discipline



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6.8 Sequencing of rhetorical functions for all disciplines

As earlier work conducted by Thompson (1994) revealed no typical sequencing pattern in the lecture introductions, this study did not expect to find a clear linear of sequence of rhetorical structure or "preferred robust orders" (Ibid., p.145). As argued by Thompson (1994) too, this conflicts with Swales' (1990) definition of genre which sees genre not only as displaying a set of common communicative purposes which differ from other genres, but also with a shared rhetorical structure through a sequence of Moves and Steps. Thompson (1994) argues that further research using a larger corpus could possibly modify this view, but additionally argues that this genre does not have a preferred sequence of functional elements and attributes this to being an informal spoken genre. Even though academic lectures share certain characteristic features with other types of written genres such as textbooks (Hewing & Henderson, 1987, cited in Thompson, 1994), lectures are generally planned and principally informational (Flowerdew & Miller,1997) they are a spoken genre and share features of other types of spoken discourse which impose considerable demands like real time processing.

Lee's (2009) comparative analysis of the rhetorical moves in two corpora of small and large lecture introductions concluded that while all of the moves are obligatory, the strategies (steps) that realize these moves are influenced by the size of class, particularly his moves 1(Warming Up) and 2 (Setting Up Lecture Framework). His main argument was that the size of the class seems to place certain constraints on the rhetorical choices that are available to lecturers. He claims, for example, that the large number of students in large classes may compel lecturers to repeatedly inform the students of course-related information and upcoming lectures, perhaps, throughout the semester and large classes seem to also require lecturers to announce the topic of the lecture multiple times before moving on to the substantive parts of the lecture.

According to the BASE public corpus information, while the lectures in the corpus are mostly all for undergraduate studies and can be considered mostly to be of large lectures, the size of lectures are different and though it can be argued that size is a variable that could contribute to the results of what a lecturer does say, even though the outline of the lecture has been planned, arguably other variables as the experience of lecturer, gender of lecturer (and students) and time of day of lecture could all bear some impact on how a lecturer conveys the communicative purposes of university lecture introductions. The focus of this study is only on the disciplinary differences, and not other variables of the lecture.

In Thompson's (1994) study the most common configuration in which is found in eight introductions from a total of 22 is a linear sequence from *Setting Up Lecture Framework* to *Putting Topic in Context.* I only found six examples of this sequence in the Social Science lectures and one each in the Physical Science, Arts and Humanities and Life Science lectures.

Thompson (1994) claims that the next most common pattern (in six introductions) is 'the interweaving of the functions, with the lecturer moving back and forth between the two', which can be seen in most of the remaining analysed lecture introductions. It also can be argued that, as there is another main function (*Listener Orientation function*) to the analysis of data, it would be very difficult to find results that concur with Thompson's (1994) study.

The example below is a Social Science Lecture SSLCT10 function sequence (Figure 25). It is the longest in the data set analysed, with 16 sub-functions used. As seen in the example below, the lecturer moves between all three functions and even repeats one function more than once - up to three times in the case of *Set Up Lecture Framework function: Announce Topic sub-function.*

Figure 23 Social Science Lecture *SSLCT10* function sequence

1. Set Up Lecture Framework function: Indicate scope sub-function
2. Set Up Lecture Framework function: Announce Topic sub-function
3. Putting Topic in Context function: Show Importance sub-function
4. Putting Topic in Context function: Refer to future lecture sub-function
5. Set Up Lecture Framework function: Indicate Scope sub-function
6. Listener Orientation function: Check Comprehension sub-function
7. Listener Orientation function: Check Comprehension feedback sub-function
8. Set Up Lecture Framework function: Indicate scope sub-function
9. Set Up Lecture Framework function: Outline Scope sub-function
10. Set Up Lecture Framework function: Announce Topic sub-function
11. Set Up Lecture Framework function: Outline Scope sub-function
12. Putting Topic in Context function: Show Importance sub-function
13. Listener Orientation function: Announcement sub-function
14. Listener Orientation function: Refer to Handout sub-function
15. Listener Orientation function: Check Comprehension sub-function
16. Listener Orientation function: Check Comprehension feedback sub-function

In the example from Physical Science lecture *PSLCT15* (Figure 26), the lecturer also demonstrates the interweaving use of all three main functions.

Figure 24 Physical Science lecture *PSLCT15* function sequence

1. Putting Topic in Context function: Recap Earlier Lecture sub-function.
2. Putting Topic in Context function: Relate NEW to GIVEN sub-function.

3. Listener Orientation function: Refer to Handout sub-function.
4. Putting Topic in Context function: Recap Earlier Lecture sub-function.
5. Set Up Lecture Framework function: Announce Topic sub-function.
6. Putting Topic in Context function: Show Importance sub-function.
7. Set Up Lecture Framework function: Outline Scope sub-function.
8. Listener Orientation function: Announcement sub-function.
9. Listener Orientation function: Refer to Handout sub-function.
10. Set Up Lecture function: Announce Topic sub-function.

This is interweaving of functions is also seen in lecture *AHLCT024* from Arts and Humanities (Figure 27):

Figure 25 Arts and Humanities lecture *AHLCT024* function sequence

1. Putting Topic in Context function: Relate NEW to GIVEN sub-function.
2. Listener Orientation function: Announcement sub-function.
3. Putting topic in context function: Show Importance sub-function.
4. Listener Orientation function: Refer to Handout sub-function.
5. Set Up Lecture Framework function: Outline Scope sub-function

And in the function sequence *LSLCT025* from Life Science (Figure 28), only two main functions are used, with the absence of Putting Lecture in Context function:

Figure 26 Life Science lecture *LSLCT025* function sequence

1. Listener Orientation function: Announcement sub-function.
2. Listener Orientation function: Introduce Oneself sub-function.

3. Listener Orientation function: Greeting sub-function.
4. Listener Orientation function: Announcement sub-function.
5. Listener Orientation function: Introduce Oneself sub-function.
6. Listener Orientation function: Introduce Oneself sub-function.
7. Set Up Lecture Framework function: Announce Topic sub-function.
8. Set Up Lecture Framework function: Indicate Scope sub-function.
9. Set Up Lecture Framework function: Outline Scope sub-function.

Interestingly Lee (2009) categorised the 'moves' in his study into obligatory and optional for small and large lectures. The two obligatory moves for both types of lectures are '*Move 2 Setting Up the Lecture Framework: Step 1 Announcing the Topic'* and '*Move 3 Putting the Topic in Context: Step 3 Referring to Earlier Lectures*'. This however, does not concur with my results. As seen in the function sequences of the examples above, these two sub-functions are not used in all four examples, or even in all the lectures. Therefore, there is no fixed or obligatory order of sequence of sub-functions but an interweaving of functions and sub-functions.

6.10 First functions and sub-functions used in lecture introductions

The data suggests that there is no one sub-function that occurs first consistently in all four disciplines when used. However, the most used first functions and sub-functions used in the whole corpus are *Listener Orientation function* with *Announcement sub-function* and *Putting Topic in Context function* with *Refer to Earlier lecture sub-function*.

6.10.1 First functions and sub-functions used in lecture introductions in Social Science

As seen in Table 38, there does not appear to be a preferred function to be used first consistently among the three *Set Up Lecture function*, *Putting Topic in Context function* and *Listener Orientation function* in the Social Science discipline. However, the sub-functions that come first are *Announce Topic sub-function* (5 occurrences) and *Introduce Oneself sub-function* (4 occurrences).

Table 38 Social Science lecture introduction function sequence

Social Science lectures	Set Up Lecture Framework function			Putting Topic in Context function					Listener Orientation function						
	Announce Topic	Indicate Scope	Outline Scope	Show importance	Relate NEW to GIVEN	Refer to earlier lecture	Recap earlier lecture	Refer to future lecture	Greeting	Announcement	Introduce oneself	Refer to handout	Check comprehension	Check Comprehension	Refer to visuals
SSLC T10	2	3,10, 13	8	4,7,9, 11		5				12		1	6		
SSLC T13	1	2	4			3									
SSLC T14	3		4							2		1			
SSLC T15	1	5			3	6		2,4							
SSLC T16					2		1	4							3
SSLC T22	3		1				2								
SSLC T23	2,4				3	1									
SSLC T24	1	2	4	3							1				
SSLC T25	4		6						1	3		2,5			

SSLC T26	2	7	3,6								1		4	5	
SSLC T29		2,5	3,7	4				6		1					
SSLC T30	7	3	2,4, 8	5		6				1					
SSLC T31		6	5		2,4	1						3			
SSLC T32		9	4	3,10	11			7		2,8	1	5	6		
SSLC T33	2	1,3	6	7	8								4	5	
SSLC T34	1		2												
SSLC T35		7	3,5	6,8	7,9	2				4	1				
SSLC T38	6		1	5									2	3	4
SSLC T39	3	4	6				1			5		2			
SSLC T40	1,3			2 ,4											
Total	17	16	21	15	8	7	3	5	1	9	4	7	5	3	2
Total first	5	1	1	0	0	2	2	0	2	2	4	2	0	0	0

Social Science lecture introductions	Set Up Lecture Function	Put Topic in Context Function	Listener Orientation function
Total functions used	54	33	31
Average	55/20= 2.7	33/20=1.65	31/20= 1.55

6.10.2 First functions and sub-functions used in lecture introductions in Physical Science

As seen in Table 39, In the Physical Science lectures, none of the *Set Up Lecture Framework function* occurs in first position . The *Putting Topic in Context function* occurs most frequently in the first position with *Refer to Earlier Lecture sub-function* (6 occurrences) and *Recap Earlier lecture sub-function* (4 occurrences). The most frequent sub-functions of *Listener Orientation function* are *Greeting sub-function* (2 occurrences) and *Announcement sub-function* (2 occurrences).

Table 39 Physical Science lecture introduction function sequence

Physical Science lectures	Set Up lecture function			Putting topic in context function					Listener Orientation function						
	Announce topic	Indicate Scope	Outline Scope	Show importance	Relate NEW to GIVEN	Refer to earlier lecture	Recap earlier lecture	Refer to future lecture	Greeting	Announcement	Introduce [illegible]	Refer to handout	Check comprehension	Check Comprehension feedback	Refer to visuals
PSLCT 05					2		1								
PSLCT 06	2,5	3	6			1	4								
PSLCT 10	13			7		10	3,5	6		4			1,8, 11	2,9,1 2	
PSLCT 15	3		6	5			1			4, 7		2			
PSLCT 16	2		3				1			4					
PSLCT 22	2					1						3			
PSLCT 23	2,5, 7	3	4,8						1	6					
PSLCT 25	6,2	7	3			1				8			4	5	
PSLCT 26	5	4	6				2			1					3

PSLCT 33	3		2			1									
PSLCT 35	2									1, 3					
PSLCT 36	4	3	7	5		1	6			2					
PSLCT 37	4	3	2			1									
PSLCT 39	3,6			4			1			2		5	7	8	
Total	18	6	10	4	1	7	9	1	1	11	0	3	5	5	1
Total first	0	0	0	0	1	6	4	1	2	2	0	0	1	0	1

Physical lecture introductions	Set Up Lecture Function	Put Topic in Context Function	Listener Orientation function
Total functions used	25	22	25
Average	25/15 = 1.67	22/15=1.47	25/15=1.67

6.10.3 First functions and sub-functions used in lecture introductions in Arts and Humanities

As seen in Table 40, In the Arts and Humanities lectures, *Set Up Lecture Framework function* occurs most frequently in the first position with *Outline Scope sub-function* (4 occurrences), *Putting Topic in Context function* with *Relate New to Given* and *Refer to Earlier Lecture* (2 occurrences), and *Listener Orientation function* with *Announcement sub-function* (7 occurrences)

Table 40 Arts and Humanities lecture introduction function sequence

Arts and Humanities lecture	Set Up Lecture Framework function			Putting Topic in Context function					Listener Orientation function						
	Announce topic	Indicate Scope	Outline Scope	Show Importance	Relate New to Given	Refer to Earlier	Recap Earlier	Refer to Future	Greeting	Announcement	Introduce self	Refer to Handout	Check Comprehens	Check Comprehens	Refer to Visuals
AHLCT01	2									1					
AHLCT05	4			5			3			2					1
AHLCT06	4	6		7	5	1	3					2			
AHLCT07	6	7	3,8		5			4		1,2					
AHLCT12	5	1, 4		3								2			
AHLCT13	2	3,5	6					4		1					
AHLCT14	2	3	4							1					
AHLCT15		8, 16	9	10					1	7,12, 15	2	3,6,11	4,13	5,14	
AHLCT16		5, 7	9		1					2,4		6,8,12			3
AHLCT19	5	4		3,6					1		2				
AHLCT20			1												
AHLCT21		4							1,3	2		5			
AHLCT22		5								4			2	3	1
AHLCT23			3	2											1
AHLCT24	2		5	3	1							4			
AHLCT25	1	3			4			2							
AHLCT26	4				6	5			1	3	2				
AHLCT27	3	5	1							4	2				
AHLCT28	2		3	4						1					
AHLCT29							3		1	2					
AHLCT30		2 , 4	6			1	3								5
AHLCT31	4			3			2			1					
AHLCT32	3		1,4	5						2					

AHLCT 38	2	3	5			4				1					
AHLCT 39			1,3							2					
Total	16	19	17	11	6	4	5	3	6	21	4	10	3	3	5
Total first	1	1	4	0	2	2	0	0	5	7	0	0	0	0	3

Arts and Humanities Introductions	Set Up Lecture Function	Put Topic in Context Function	Listener Orientation function
Total functions used	52	29	52
Average	52/25=2.08	29/25=1.16	52/25=2.08

6.10.4 First functions and sub-functions used in lecture introductions in Life Sciences

Table 41 Life Science lecture introduction function sequence

Life Science lecture	Set Up Lecture Framework function			Putting Topic in Context function					Listener Orientation function						
	Announce Topic	Indicate Scope	Outline Scope	Show Importance	Relate New to Given	Refer to Earlier Lecture	Recap Earlier Lecture	Refer to Future Lecture	Greeting	Announcement	Introduce Oneself	Refer to Handout	Check Comprehension	Check Comprehension	Refer to Visuals
LSLCT08				2			1								
LSLCT09		8		3	2	1					4		5	6	7
LSLCT10			4,6	3	2				1						5
LSLCT11	7	4,8	10	1		2, 5		3		6					9
LSLCT12	2,10	4	5,8, 11						1	3,9		7	6		
LSLCT13	2	3,7	4	6			5						1		3
LSLCT14	1	2,5	7	6						8			3	4	
LSLCT15	4,11	6,9	10	8						1,3	2	7			5

LSLCT16	2	3		5			1								4,6
LSLCT17	5		2	4						6	1				3
LSLCT18	1,3	5	6			4				2					
LSLCT19	2	5	3		1						4				
LSLCT20		3							1	4,6	2,5				7
LSLCT21	2	6		5					3	4	1				
LSLCT22		3	6			2, 5			4	1					
LSLCT24		3								1	2	4			
LSLCT25	5	6	7							1,3	2,4				
LSLCT26		4	1,3	5											2
LSLCT27		3	4			2				1					
LSLCT28	2									1					
LSLCT29			1,4	3	2										
LSLCT30	1	2,4			3										
LSLCT31	3	1,4									2				
LSLCT32	5		2	9						4,6	1	3	7	8	
LSLCT33	3	5,7		1, 5						2		6	4		
LSLCT34		1			3					4		2			
LSLCT35		3			2		1								
LSLCT36		2			3	1									4
LSLCT37					2	1				4		3			
LSLCT38	2	6	4	3, 5					1						
Total	21	30	21	17	9	9	4	1	6	22	12	7	6	3	11
Total first	3	2	2	2	1	3	3	0	4	6	4	0	1	0	0

Life Science Introductions	Set Up Lecture Function	Put Topic in Context Function	Listener Orientation function

Total functions used	72	40	67
Average	72/30=2.4	40/30=1.3	67/30=2.2

As seen in Table 41, In Life Science lectures, the *Set Up Lecture Framework function* occurs most frequent in the first position with *Announce Topic sub-function* (3 occurrences), the *Putting Topic in Context function* with *Refer to Earlier Lecture* and *Recap Earlier Lecture* (3 occurrences) and *Listener Orientation function* with *Announcement sub-function* (6 occurrences)

Although there is no observed preferred sequence of functions and the majority of sub-functions across the disciplines, there is a preferred sequence of function when using *Check Comprehension sub-function*, which is always followed by *Check Comprehension Feedback sub-function*. This is due to the nature of the sub-function, which requires response from the audience, and following that, appropriate feedback. This is evident in all disciplines as seen in Table 37, 38, 39 and 40 of lecture introduction function sequence.

6.11 Chapter discussion and summary

To summarise, the genre analysis of the Lecture Introduction Corpus sees that the *Set Up Lecture function* is used most in the Lecture Introduction Corpus with 41% of total sub-functions, followed by *Listener Orientation function* (37%) and lastly *Putting Topic in Context function* (22%).

The different use of all 15 sub-functions of the Lecture Introduction Framework reflects the disciplinary culture and knowledge within the domains of Life Science, Arts and Humanities, Social Science and Physical Science in the Lecture Introduction Corpus

supporting Becher and Trowler's (2001, p.23) claim that 'the ways in which particular groups of academics organise their professional lives are related in the important ways to the intellectual tasks on which they are engaged.'

Compared to other disciplines, the Life Science discipline features a heavy use of *Listener Orientation function* with a high use of *Greeting (4.51%), Introduce Oneself (6.7%)* which reflects the nature of the discipline which draws on guest lecturers and working professionals from the industry to teach its students. The high use of *Refer to Visual sub-functions (6.14%)* concurs with Brown and Bakhtar (1988 ,p.135) who describe the lecturing style of Bio–Science (also known as Life Science in this study) as being "more likely to use heading and sub-headings or use the blackboard to provide full-notes."

Appendix IV illustrates Life Sciences lecture introduction LSLCT017 which uses the *Introduce Oneself sub-function* and *Refer to Visual sub-function*. It starts with the lecturer introducing himself and continues by referring to a visual on the board (which is a mathematical equation) to grab the students' attention. He then elicits responses and announces the topic of the lecture which is a medical condition that Albert Einstein suffered from, the man who made popular the mathematical equation presented earlier.

The Arts and Humanities discipline refers to its handouts in the introduction the most of all the disciplines with *Refer to Handout sub-function*. According to Becher (1994), this discipline is concerned with particulars,quantities and complication together with understanding and interpretation of the subject matter. Therefore, it can be assumed that the use of handouts can help support understanding by directing students towards a wide reading of the literature canon.

The use of *Refer to Handout sub-function* can be seen in Appendix V of Arts of Humanities lecture introduction AHLCT015. The lecturer refers to the handout in the lecturer introduction and claims that the handout is not exactly about what is in the lecture but has "connections" to the lecture topic. This suggests a link between the lecture handout, and a wider reading of the Arts and Humanities literature canon.

Brown and Bakhtar (1988),p.133) observes amongst many things that lecturers in the Humanities "prepare lecture notes for each lecture in the course, are much more likely to quote from texts than their colleagues in social science, science, engineering or medical sciences". Furthermore, they claim that lecturers in the Humanities are more likely to begin a lecture by posing a question but this was not observed in our data.

The Social Science discipline is noted to use *Refer to Future Lecture sub-function* (4.07%) more than other disciplines. The reference and linking to the future lecture can be seen to appeal to its nature which is concerned with functional matters and enhancement of (semi) professional knowledge as a 'soft-applied' discipline (Becher, 1994). Although there was no example of reference to future lecture as contributing towards the knowledge of the students for their future lives on the long–term, the evidence from the data points to reference to the short-term future.

As seen in Appendix VI, the *Refer to Future sub-function* in the Social Science lecture introduction SSLCT015 links the topic of the lecture to one in the next week. The lecturer also refers to the earlier lecture to link previous lecture with the current.

In contrast, Physical Science prefers to refer backwards to earlier lectures compared to other disciplines with the high use of *Recap Earlier Lecture sub-function* (occurring 10.84%) and *Refer to Earlier Lecture sub-function* (occurring 8.43%) compared to other disciplines.

Knowledge from one lecture is seen as building on from the earlier one which is evidence of Becher's (1994) description of the nature of knowledge of 'pure-science' discipline as being 'cumulative'.

The linking of earlier lecture to the present lecture can be seen in Appendix VII of Physical Science Lecture Introduction PSLCT015. The lecturer starts the lecture with a lengthy *Recap Earlier Lecture sub-function.* The lecture continues with an interweaving of sub-functions of *Relate New to Given* and *Refer to Handout sub-function* before another use of *Recap Earlier Lecture sub-function.* The lecturer then continues with five more sub-functions of *Announce Topic, Show Importance, Outline Scope, Announcement, Refer to Handout* and *Announce Topic sub-function*.

I will now continue with the discussion of the results of the Corpus Linguistic analysis of the Lecture Introduction Framework which will involve a closer analysis in further discussing the nature of the language used by lecturers and the disciplinary differences revealed by this method of analysis.

CHAPTER 7: CORPUS ANALYSIS AND DISCUSSION OF LECTURE INTRODUCTION WORDLIST

7.1 Introduction to Corpus Analysis methodology

Whereas the previous part of this study focused on describing lecture introductions using Genre Analysis which identified a framework of rhetorical structure of lecture introductions, this chapter aims to complement the proposed framework by using Corpus Linguistics tools. The aim is to discover frequent words and keywords in the Lecture Introduction Corpus by using the extraction tool Wordsmith Tools 5. This software has its merits in that it is widely used for corpus analyses and most importantly, has the functions that would be used in this study.

Using both genre and corpus analysis has the advantage of allowing for triangulation of methods. Jupp (2006) sees triangulation as referring to the observation of the research issue from at least two different points, in qualitative as well as quantitative research and in the context of combining both. It is further defined into four main types: First is Triangulation of data, which combines data drawn from different sources and at different times, in different places or from different people. Second is Investigator triangulation which is characterized by the use of different observers or interviewers, to balance out the subjective influences of individuals. Third is Triangulation of theories, which means to approach data from different theoretical angles, which are used side by side to assess their usefulness. Fourth and lastly is the methodological triangulation, which can be either within-method or between-method. The former refers to the use of facets of the same method and the latter referring to the use of two and often contrasting methods (Litosseliti, 2010).

Combing genre and corpus based methods of text analysis can be considered as type four method of triangulation where the methods of genre analysis and corpus linguistic analysis are applied independently to the data. Both data sets resulting from this are analysed and triangulation then relates the results of both analyses and to each other. This triangulation of method can hopefully provide another picture of how lecturers deliver Lecture Introductions by showing empirical results of frequent words and words which are seen as key in the corpus with the aid of an extraction tool.

The merits of combining the two approaches of genre and corpus based approach to text analysis are supported by Gledhill (2000,p.116):

> The attraction of a combined approach to both genre and corpus analysis lies in the potential for a corpus to reveal recurrent patterns across a representative sample of texts. The genre approach in turn allows us to nuance the often monolithic descriptions that may emerge from corpus work, by offering a contextual, ethnographic basis for the construction of a textual corpus as well as a view of text as a series of choices, ebbing from one style to the next.

His study analysed the distribution and collocational behaviour of idioms and lexical items in different sections of the academic research article and argued that the analysis of grammatical words is an efficient way of arriving at a description of the most typical expressions in the corpus. His corpus of cancer research articles was split into sections: Title, Abstract, Introduction, Methods, Results and Discussion and used the Wordsmith Tools's *Keyword* program to compare frequency lists from the corpus and providing a list of frequent words that were more significantly frequent in one section than in the rest of the corpus. This

enabled a principled approach to deciding which grammatical words to analyse. Salient items were listed as typical of the rhetorical section rather than of the corpus as a whole. His examination of the pharmaceutical sciences corpus points to lexico-grammatical correspondences that are particular to different sections of the cancer research article genre.

This integration of approaches to text analysis is also supported by Flowerdew (2005) who reviewed corpus studies which rely on a genre approach for their studies. One argument put forward against a sole corpus-based methodology for analysis of text is that it does not take into account the contextual features of the text. Hunston (2002 cited in Flowerdew 2005) also sees the absence of visual and social context for the interpretation of concordance lines as one of the most serious drawbacks in using corpus analysis. This lack of contextual features is particularly problematic for the corpus analyst when dealing with pragmatic features of text, which may only be recoverable from the socio-cultural context (Flowerdew 2005). The genre approach to text analysis has the context of a text central to its analysis: the relationship between participants and the mode of the text (written or spoken) informs the reader/listener of communicative functions contained in the text which would dispel this argument.

Furthermore, Flowerdew (2005), highlights that the most common tool for analysing corpora is concordancing software for displaying the key-word-in-context limits the analysis to a bottom– up type of investigation of the corpus data. This is at odds with the more top–down kind of analysis common to the Swalesian genre approach to text analysis as in genre analysis, the starting point is with the macrostructure of the text with a focus on larger units of text rather than sentence-level, lexico-grammatical patterning. Flowerdew (Ibid.) gives examples of studies which devised tagging systems for coding the generic move structures of the texts in their corpus (see Thompson, 2000; Upton, 2002; see Connor et al., 2002; Upton & Connor, 2001). These studies can counter the argument of the sole use of bottom–up

approach of corpus linguistics, by also adopting the top-down approach of genre analysis, by working with whole texts instead of random samples which are representative of the target genre or language that is intended to study.

As tagging functions can only be done manually and is time consuming, this can explain the low numbers of these types of studies. Also, only genres which exhibit a fairly formulaic, conventionalized rhetorical structure can be easily tagged and that texts comprising mixed genres or exhibiting a wide range of move structures or embedding of move structures, as it would probably be too unwieldy to implement (Flowerdew, 2005). With a spoken genre like lecture, this could be problematic as rarely a communicative function is realised in formulaic expressions as would in a written genre.

In addition to studies that tag move structures, Flowerdew (2005) cites Flowerdew and Dudley-Evans (2002)'s study which did not employ tagging systems but used corpus methodologies in the form of frequency lists and concordancing which were used to extract interpersonal features within various move structures. For example, Flowerdew and Dudley-Evans (Ibid.) found that a word frequency count showed that *I* to be the second most frequent lexical item in the letters and a concordance of this item revealed that it was most often used in the construction *I think you* + modal verb in providing recommendations.

Another study which adopts a methodological approach close to that used in this study is Durrant and Mathews-Aydınlı (2011) who conducted a function-first approach to identifying formulaic language in academic writing. Using 96 essays from the British Academic Written English Corpus, they annotated their corpus first for different moves. Then they focused on a particular move which exhibited a high usage in their corpus of examined formulaic language, which is found more in written prose than in spoken. They found that

functions can be realised through a variety of linguistic realisations and therefore conclusions drawn regarding how the functions are realised should be made with caution.

Also close to the methodology of this study is Henry and Roseberry's (2001) which initially compared the most frequent words of each of the different sub-functions (also known in other genre studies as moves) in their study on Letters of Application and then identified the key syntactic patterns and word collocations of each of the sub-functions. They claim that the results show striking differences between the different levels of analyses, in particular effectiveness of an analysis at the level of the strategy (which can be seen comparable to the Swalesian sub move/step of move), rather than just at the level of the move or genre register. Their analysis has revealed that within one move of the genre, a very wide range of discourse and syntactic features can be found which provide more detailed genre specific information than can be obtained from existing textbooks or from a dictionary. In addition, they claim that in order to teach the genre of Letter of Application, ESP practitioners need to be aware of not just this range of features, but where they are used and for what purpose. Similarly, the genre analysis of this study revealed 3 different main functions of the lecture introductions which are realised by 10 possible sub-functions, which is further realised by a range of discourse and syntactic features. Therefore this type of analysis can provide language teachers and lecturers with a wealth of information that can make teaching and learning more effective.

The methodology in this study is similar to the above where moves in the corpus are tagged manually for their functions. The *Wordlist* tool in Wordsmith Tools 5 is used to generate a wordlist based on frequency and the *Keyword* tool which uncovers words that are salient in a corpus in comparison to a reference corpus, are used to help provide a description of the language of lecture introductions.

7.2 Introduction to this chapter

This chapter discusses results from running the *Wordlist* program from Wordsmith Tools 5 on the whole Lecture Introduction Corpus. *Wordlist* program generates token lists in order of frequency, which provides empirical evidence of words which typically characterises the genre, to add to the description of the framework proposed.

This chapter will however not discuss disciplinary differences of the four different disciplinary domains of Arts and Humanities, Social Science, Life Science and Physical Science. Keyword analysis of the disciplines is an analysis of the high frequency and key lexical features of the disciplines in Lecture Introduction Corpus, in comparison with a reference corpus (the whole BASE lecture corpus) by running the *Keyword* program on Wordsmith Tools 5. The results obtained from this analysis can be considered salient in the sense that they will be signalling what is quantitatively distinctive about this genre from a lexical perspective. Unfortunately Keyword analysis did not reveal satisfactory results regarding disciplinary differences as the size of the lecture introductions were too small to reveal significant keywords. However, keyword analysis of individual sub-functions and disciplinary differences will be dealt in the next chapter on the corpus analysis of *Set Up Lecture Framework function*.

7.3 Most frequent words in Lecture Introduction Corpus

The analysis began by using the WordSmith Tools 5 (Scott 2008) *Wordlist* program to identify word frequencies for the Lecture Introduction Corpus. According to Scott (2008):

> 'Wordlist program generates word lists based on one or more ASCII or ANSI text files. The word lists are automatically generated in both alphabetical and

frequency order, and optionally you can generate a word index list too. There are five main uses of wordlists:

1. to study the type of vocabulary used
2. to identify common word clusters
3. to compare the frequency of a word in different text files or across genres
4. to compare the frequencies of cognate words or translation equivalents between different languages
5. to get a concordance of one or more of the words in your list.'

Running a word frequency list on the Lecture Introduction Corpus thus generates a rank ordering of all the words in the corpus in order of frequency. As seen in Table 42, frequency lists across different corpora, different language varieties and context of use can be used to facilitate enquiry of difference of use. Table 41 shows the top 30 most frequent words of the Lecture Introduction Corpus, the ACAD Academic segment of CANCODE (O'Keeffe et al., 2007), the Spoken BNC wordlist (Leech et al., 2001) and CANCODE Spoken wordlist (O'Keeffe et al., 2007) in order to compare this corpus with typical spoken English and thus enables a comparison of academic lectures with other academic corpora and typical spoken English. The list for the top 200 words in the Lecture Introduction wordlist can be viewed in Appendix VIII.

Table 42 Top 30 words from wordlist of Lecture Introduction Corpus compared to BNC Spoken and CANCODE Spoken.

CANCODE Spoken (O'Keeffe, McCarthy et al. 2007)	BNC Spoken (Leech, Rayson et al. 2001)	ACAD Academic segment of CANCODE O'Keeffe, McCarthy et al. 2007)	BASE Lecture Introduction Corpus	Raw Frequency

the	/	The	/	THE	/	THE	2289
i	/	I	/	AND	/	OF	1495
and	/	You	/	OF	/	ER	1406
you	/	And	/	YOU	/	AND	1329
it	/	It	/	A	/	TO	1328
to	/	A	/	TO	/	A	944
a	/	S		THAT	/	IN	901
yeah		To	/	IN	/	THAT	818
that	/	Of	/	IS	/	YOU	784
of	/	That	/	IT	/	I	695
in	/	n't		I	/	IS	646
was	/	In	/	ER	/	SO	442
its		We	/	SO	/	IT	405
know		Is	/	IT'S		THIS	401
is	/	Do		THIS	/	WE	380
mm		they		WHAT	/	ON	320
er	/	Er	/	YEAH		AT *	319
but	/	Was	/	ERM		ABOUT *	314
so	/	Yeah		ARE		BE	291
they		Have	/	BUT	/	FOR *	281
on	/	What	/	ON	/	ARE	270
have	/	He		HAVE	/	WHAT	270
we	/	That	/	BE	/	HAVE	267
oh		To	/	WE	/	AS	266
no		But	/	RIGHT		# *	252
like		For	/	KNOW		WAS*	251
well		Erm		AS	/	BUT	244

what	/	Be	/	THEY		WHICH *	231
do		On	/	IF		GOING *	224
right		This	/	OR		WITH *	223

7.4 Lecture Introduction Corpus compared to Academic segment of CANCODE

Comparing the Lecture Introduction wordlist with another academic corpus, the ACAD Academic segment of CANCODE shows that the top 30 words are not entirely similar, owing to the Lecture Introduction corpus comprising of one academic genre and the latter of academic discourse of presumably different genres. Whilst there are twenty two words shared by the academic wordlists, unsurprisingly there are eight words which are different as indicated with asterisks in Table 41 (at, about, for , # (number), was, which, going, with). This can be explained by the genre differences of both wordlists. The different high frequency words in both lists also gives a glimpse of the Lecture Introduction genre, as being about imparting students with knowledge or information about the main lecture at the beginning of a lecture.

O'Keeffe, McCarthy et al. (2007),p.12) found that the top ten words of their academic corpus resembled the two written corpora. Amongst the similar features they listed are:

‘The high frequency of:

- articles *a* and *the*, indicating a high instance of noun phrases
- the preposition *of*, suggesting post-modified noun phrases

- *that*, especially in academic corpora, pointing to its multi-functionality, as a subordinator (particularly following report verbs or in it patterns) as well as a relative pronoun in relative clauses
- prepositions *to, for* and *in* , suggesting prepositional phrases'

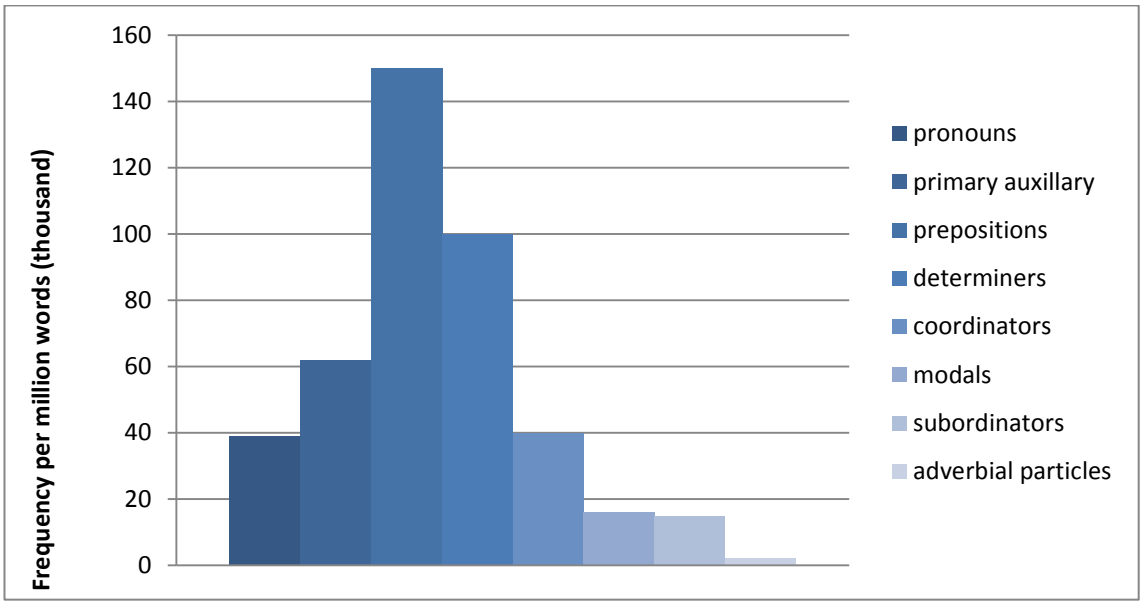
They also add that there is a lack of pronouns *I* and *you* in their academic corpus, and that the only pronoun that figures in the top ten words is *it*, which is referential as opposed to interactive. There is a lack of response tokens or discourse markers such as *yeah, like and now*. However, this is different in the Lecture Introduction corpus, presumably because it is a spoken genre and pronouns (*I, you* and *we* as seen in Table 42) and discourse markers (*okay* and *now* as seen in Table 41) are used by lecturers to engage and interact with students.

This is consistent with the study of Csomay (2006) which investigated the language of university class sessions and compared it to academic prose and face-to-face conversation, and found that the class sessions exhibited features of both registers. Though the language of the study was of a whole class session, the study noted that the class sessions were closer to academic prose in informational focus and abstract style and it is also close to face-to-face conversational features associated with involved production circumstances and situation-dependent, (non)explicit discourse. However, one limitation that outlined in the study is that it does not capture linguistic variations within class types (e.g. lectures, seminars).

A quick glimpse at the top 30 words of the Lecture Introduction wordlist reveals that it consists entirely of function words. The work of Biber et al. (2002a) has revealed that function word classes vary in their frequency in different registers of English. They found a high frequency of function word classes in academic prose (see Figure 29), especially the high

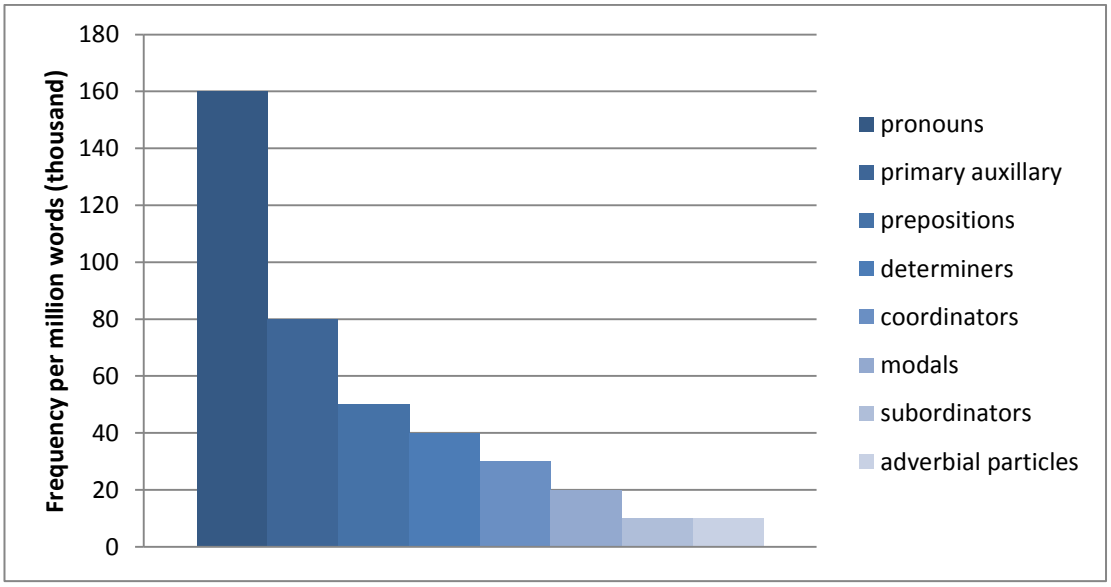
proportions of prepositions (150 thousand per million) and determiners (100 thousand per million) which is also evident in the top 30 words of Lecture Introduction wordlist.

Figure 27 Frequency of function word classes in academic prose (Biber et al.2002, p.32)



7.5 Lecture Introduction Corpus compared to CANCODE and BNC Spoken

Figure 28 Frequency of function word classes in conversation (Biber et al.2002, p.32)



The Lecture Introduction wordlist shares 16 words in common with the spoken language corpora which suggests that even though this genre is academic, it is essentially spoken and contains features of spoken language like fillers and hesitations. For example *er* in Lecture Introduction corpus and *erm* in the Spoken BNC list, though it is uncertain what the distinction between these two fillers are.

The Biber et al. (2002a) study on the frequency of function words in conversation seen in Figure 30, does not address the high frequency of fillers and hesitations. It does however highlight that language of conversation contains a high proportion of pronouns compared to other word classes. Combining the total of occurrences of *I, you* and *we* in the Lecture Introduction Corpus does amount to the raw frequency 1895 which is the second highest overall total of word category, behind determiners.

It should be noted that the top 30 words of Lecture Introduction Wordlist consists mainly of function words is similar to the findings of Handford's (2010) study of the language of business meetings. He found that the top 100 words of the CANBEC meetings compared to the frequency list to the SOCINT (corpus of spoken everyday language) were all de-lexicalised words and explained this in terms of the idiom principle where the most frequent words in language have virtually no meaning or semantic weight but have many collocates. However, this is the opposite for the least frequent words which has some semantic weight but fewer collocates.

7.6 Discussion of different word categories in Lecture Introduction Wordlist

7.6.1 Introduction to word categories in the Lecture Introduction Wordlist

The following divides the discussion of the words in the top 30 of the Lecture Introduction wordlist into the following categories: Articles (*A* and *The*) , Pronouns (*I, you* and *we*), Conjunctions (*as, so, but as*), Prepositions (*of, in, at*), *It, This* and *That,* Infinitive Marker *'to'*, Lexical Verbs (*going* and *know*), Discourse Markers (*okay* and *now*), Names and Lexical Bundles.

7.6.2 Articles *a* and *the*

'The' is consistently the most frequent word in all corpora while *'a'* is number 6 in the Lecture Introduction corpus. '*The'* occurring first is similar between all corpora and '*a'* occurs high up the wordlists, though not in the same position. This suggests that this word is essential in spoken language and this indicates a high instance of noun phrases.

7.6.3 Pronouns

A closer examination of the Lecture Introduction wordlist reveals that although there are some words in common with the other two, their positions are slightly different, as can be seen through pronouns. Pronouns like *'I'* and '*you'* feature high up the BNC and CANCODE wordlist but further down in the Lecture Introduction wordlist. Nevertheless, these two pronouns are the top two used in both wordlists, though not in the same order.

Interestingly, The pronoun '*you'* is highest occurring pronoun in the Lecture Introduction wordlist, at number 9 with '*I'* coming in second at number 10 and '*we'* third at number 15. This is also similar to ACAD where '*you'*, at number 4 occurs before '*I'* at number 11.

This is in contrast with the BNC and CANCODE wordlist with '*I'* coming before '*you'*. '*I'* as the most frequent pronoun followed by '*you'* is consistent with research on pronouns in a MICASE corpus of 770,353 words by Fortanet (2004b) which found that *we* is only used half as many times as other pronouns such as '*I'* or '*you'* in academic English. Fortanet's (2004) study contrasts with the work of Rounds (1987a) which found '*we'* the most frequently used pronoun in academic Mathematic lectures. This is an interesting finding as it can be attributed to a disciplinary variation or a particular use of language of the time of the research (late 80s).

'You' being the highest occurring pronoun can be expected as it refers to people in general, and the community of listeners of immediate addressee, which in the case of Lecture Introductions is the students. As the genre studied is of lecture introduction, reference to the addressee is vital to ensure attention is gained and immediate message conveyed.

The pronoun '*you'* is frequent in both written and spoken academic style and can be seen in the example below:

Example 7.1 Y*ou* as a referent to audience in the Lecture Introduction corpus AHLCT023

right so this is a picture of Edward Thompson er at a peace movement rally in nineteen-eighty-one i think er in Trafalgar Square and i put it up there to make as it were very pointedly

the point from the start that Thompson is nothing if not a committed historian let me start by telling you a bit about his biography

Although lectures can be regarded as happening in a formal environment, the use of '*you'* suggests that the power-distance between lecturer and student is softened. A diachronic study might reveal that the language and environment of British universities has become less formal in the past decades as '*You'* and '*one'* can refer to people in general and the academic community, where the former is less formal than the latter. '*One'* is considered to be less frequent than '*we'* or '*you'* in spoken academic style (Ibid., p.286). It is number 32 on the wordlist, where a concordance search revealed only 13 of the 198 examples referred to '*one'* as pronoun and the rest as numerals.

Example 7.2 *One* as pronoun in the Lecture Introduction corpus

AHLCT014

so what i want to concentrate on is Cardiac Arrest mostly er although some of the things i'll be saying obviously one can extrapolate and generalize to other medical dramas and other programmes as well okay so i'm going to start er hot docs

Example 7.3 'O*ne'* as numeral in the Lecture Introduction Corpus

LSLCT036

shall pick up where i left off yesterday i was talking about localised infections and i gave one example which was rhi which was papilloma virus er which as you know causes warts so it's infection is localised to the skin infection of squamous epithelium

Further discussion on the semantic referents of '*I'*, '*you'* and '*we'* as used in *Set Up Lecture function* and use in different disciplinary domains will be discussed in Chapter 8.

7.6.4 Conjunctions

The Lecture Introduction wordlist includes a number of cohesive devices through conjunctions *and* (number 4), *so* (number 12), *but* (number 27), *as* (number 24).

Conjunctions are a grammatical class of words which express a variety of logical relations between phrases, clauses and sentences. They are further divided into two types. The first being coordinating conjunctions which are used to link elements of equal grammatical status (e.g. *and, or, but*). The second category is subordinating conjunctions which relate clauses to one another and make the clause they introduce one that is dependent on the main clause (e.g. *after, although, as, before, if, since, that, until, when, whereas, while, as soon as, in order to, in order that, as long as,*) (Carter and McCarthy, 2006).

In the Lecture Introduction genre, it has been observed that the words *and* and *but* also serve as 'parataxis' which is a feature of ways in which speakers facilitate production of speech. 'Parataxis' is the tendency to tack new sentences on to previous ones by the use of coordinating conjunctions like '*and', 'or', 'but'* or no conjunction at all (Bygate, 1987).

Example 7.4 Parataxis *and* in *AHLCT016*

er and to start starting with literature so that if you look at the bottom of your handout there's er a kind of s-, skeleton of the er lecture and er i will start with the literary origins of the genre

Example 7.5 of Parataxis *and* and *but* in *SSLCT015*

and i suppose i will be perhaps holding back from policy issues what this means of course is that you mustn't assume that all the answers to next week's seminar are to be found in today's lecture er today's lecture is going to give you some of the material for next week's seminar but you're going to have to go further er in the reading which we provide for you and indeed in

your own thoughts right prostitution and the law er the first question i suppose is what is the law trying to achieve er in relation to prostitution

7.6.5 Prepositions

According to Carter and McCarthy (2006), prepositions are closed word classes which express a relation in time between two events or a relation in space between two or more things or people. The most common prepositions consist of single words : *about, after, as, at, by, during, for, from, in, of, off, on, to* and *with* but can also more than a single word: *in front of, outside of, out of* and *next to*.

With reference to Figure 28 (Section 7.5), Biber, Conrad et al's (2002) study highlighted a high number of prepositions in characterising academic prose. This is true of the Lecture Introduction wordlist where the prepositions '*of*' is number 2, '*in'* is at number 7 , *'on'* at number 16 and '*at'* number 17.

This study will further examine and categorise concordance lines of '*of*' to explore the academic versus spoken uses within corpus in section 7.7.

7.6.6 It, This and That

Number eight in the wordlist is '*that'*, thirteen in the wordlist is '*it'*, at fourteen is '*this'*. The impersonal pronoun '*it'*, the demonstrative pronoun '*this'* and '*that'* are words outlined by Carter and McCarthy (2006) as 'textual signals' popularly used in spoken academic English.

They are considered to be an important aspect of academic style by guiding a listener around a text and signal how the speaker would like to be interpreted. They argue that:

1) *'It'* is used for unmarked reference within a current entity or focus of attention.
2) *'This'* signals a shift of entity or focus of attention to a new focus.
3) *'That'* refers across from the current focus to entities or foci that are non-current, non-central, marginalizable or other attributed.

Although their research results were obtained from British newspapers and magazines over the period of 1985 to 1988, Carter and McCarthy (2006) are convinced that further examination of these words in spoken language would find similar use. The examples below of '*it', 'this'* and '*that'* from the Lecture Introduction corpus support their observation.

Example of *it* as a textual signal in *SSLCT016*

yesterday i i started to introduce a a a a a large number of quite difficult concepts and ideas to you er the idea of a a tenure a historical system of landown-, landowning in this country and how it developed the idea that flowed from that that it was impossible for people directly to own land so lawyers had invented this idea of the estate the abstract concept an estate which defines rights and interests in land it is the estate that people own. i went on to look at the idea of possession being of fundamental importance in the English law and the concept of title as being a legal right to possess land

With reference to Carter and McCarthy (2006) it is used as an unmarked the focus of the attention. In Example *SSLCT16,* the lecturer starts the lecture by drawing the students attention to the previous lecture and highlights ideas introduced, one being 'the the idea of a

tenure a historical system of landowning'and refers to the idea as '*it'* twice afterwards, presumably to reinforce and remind students what had learned before moving on to the next topic.

Example 7.6 '*This'* as a textual signal in *AHLCT031*

so you know this is the last lecture of this unit er and i really hope you will enjoy the other modules

Example 7.7 *That* as a textual signal in *AHLCT030*

today the criticism of Wölfflin and Riegl what they said what people said shortly after Riegl and Wölfflin had published was what about subject matter if you listen to those guys you you think you you know there's er artists never have any thoughts in their brains they just work with forms so shouldn't we take subject matter and what is depicted a little bit more serious and that was the first criticism and the first response was developed by someone by a guy who ha-, i had here on the blackboard called Erwin Panofsky and that approach is called iconography that's the first one i will be talking about Panofsky really resolutely restored subject matter and thought content to the work of art

In Example 7.7, the lecturer recaps the previous With reference to Carter and McCarthy (2006), '*that'* can be used as reference across from the current focus.

7.6.7 Infinitive marker 'to'

Number 5 on the wordlist is '*to'* , which can either be used as a preposition, but most commonly in this corpus as the infinitive marker to where its chief use is as a complementizer

preceding infinitive (base) form of words. A concordance search on the whole corpus revealed these top 3/4 word clusters which include '*to'* as an infinitive marker.

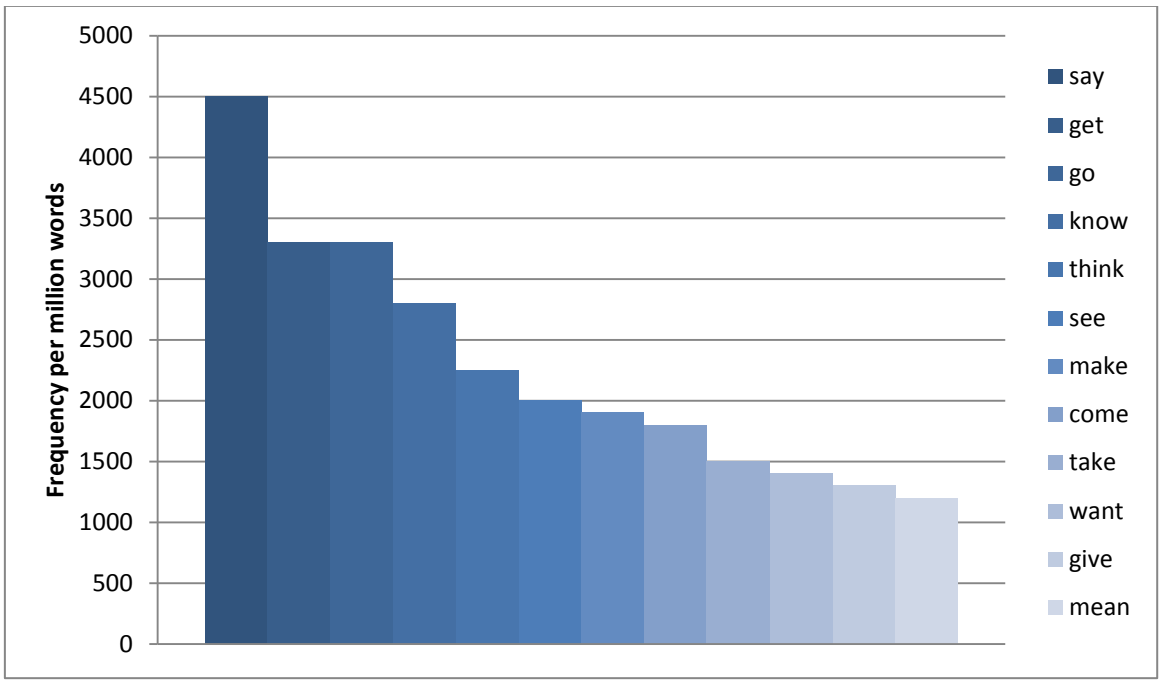
Top 3 and 4 word lexical bundles related to *to* in Lecture Introduction corpus

N	Cluster	Freq.
1	I'M GOING TO	76
2	WE'RE GOING TO	52
3	GOING TO BE	40
4	I WANT TO	37

7.6.8 Lexical verbs

Number 29 on the wordlist is the verb '*going'* with a raw frequency of 224 in the whole corpus, in which the base form is '*go'*. '*Go'* is listed by Biber, Conrad et.al (2002a) as one of the twelve most common lexical verbs in English in the LWSE Corpus as seen in Figure 31.

Figure 31 Frequency of the most common lexical verbs in the LSWE Corpus (over 1,000 per million words) (Biber et al. 2002, p.110)



It is interesting to note that the word *'going'* is the first lexical verb on the wordlist and is in the progressive form. Also, in mostly all the examples it precedes *'to'* as an infinitive marker. The choice of this tense-aspect can be explained as a structuring function as seen in the example below to announce the topic of a lecture. Interestingly '*What I'm going to do'* is a macro-marker outlined in Chaudron and Richards (1986) study as aiding students to understand lectures better. This will be further discussed in further in section 8.3 under Corpus Analysis of the *Announce Topic sub-function*.

Example 7.8 G*oing to do* in Lecture Introduction corpus in *LSLCT019*

so what i'm going to do today is talk a little bit about the background er of research medical research ethics er i shall talk about the sort of way in which er medical research is controlled in this country

Another point worth mentioning is that the contracted verb form, as seen in the example above; '*I'm'* - is a feature of spoken academic language, which is avoided in academic writing. Other contracted verb forms further down the wordlist at number 33 and 34 are '*it's'* and '*I'm'*. Also '*we're'* at number 58.

Another lexical verb '*know'* is on the wordlist at number 48. A concordance investigation unveiled that more than half of the 146 occurrences came after the pronoun *'you'* in the set phrase '*you know'*. '*You know'* is a set phrase which is often used in speaking to monitor the state of shared knowledge and projects an assumption that the listener shares the speaker's perspective (Carter and McCarthy, 2006). In a lecture, the lecturer is the one imparting information and with assumingly greater knowledge than the students and this could possibly been seen as a way to soften the power distance relationship between them.

7.6.9 Discourse markers

The words '*Okay'* (number 55) and '*now'* (number 45) are the top two discourse markers used in lecture introductions as indicated through the wordlist. Research by Chaudron and Richardson (1986) on discourse markers in lectures suggest that lectures which use more macro-markers (signals or meta statements about the major propositions within the lecture, or the important transition points in the lecture, For example '*What I'm going to talk about today'* are likely to be easier to follow but an over-use of micro-markers (Example *then, and, now, after this, at that time, because, so)* possibly detracts from the overall coherence of the lecture. The use of them suggests that lecturers are trying to 'guide' their listeners through the lecture.

'Now' is often used as a discourse marker to indicate that a new idea is being introduced, to mark a topic shift or to mark a boundary between stages of a conversation (Ibid., p.112). In lecture *AHLCT038*, *now* is used to is used to mark a boundary between two sub-functions, *Announcement sub-function* and *Announce Topic sub-function.*

Example 7.9 'N*ow'* as discourse marker in *AHLCT038*

er last time as you know that er er tape recorder broke down i've in fact done a rerecording rather swiftly last night for anyone who did miss the lecture and needs to make use of that material er but it er it is now in S-R-C er somebody said could i put in a box available er the er O-H-Ps that i've been using well i've put er er er copies from which i've copied O-H-Ps in the box in the philosophy common room and somebody else was saying what about our essays er to which the answer is yes what about your essays indeed er i'll hope to be able to let you have them er next week er right (*Announcement sub-function*)

now we said today that we'd talk about Kant in considering the three dominant strands of ethical thinking that emerged out of the break-up of the medieval synthesis i've sketched the appeal to pleasure with particular reference to utilitarianism er from er from Bentham onwards and last time i was talking about the appeal to moral insight from Butler's conscience to twentieth century intuitionism and there remains the appeal to law now first let's get some quite proper objections out of the way (*Announce Topic sub-function*)

Now also refers to the present time as seen in lecture *SSLCT013*. As a lecture introduction usually sets the background to the main substantive parts of lecture to come, a reference to the present time is naturally expected.

Example 7.10 *Now* as time marker and discourse marker in *SSLCT013*

i want to move on now to something called the Smith and Manchester award hopefully you've got yesterday's handout in front of you now

In the Lecture Introduction corpus, '*okay'*; on the wordlist at 55, '*frequently'* functions as a discourse marker to indicate a change of topic or to signal that a new stretch of discourse is beginning as seen in the examples below. Interestingly is the first word in seven lectures in the whole corpus and second in two lectures.

Example 7.11 'O*kay'* as discourse marker in *SSLCT025and AHLCT013*

SSLCT025 okay everybody hello nice to see you hope you had a good reading week have your attention please at the back at the sides have you all got one of these

AHLCT013 okay er so i'm going to be lecturing on Orlando Orlando A Biography today

'Okay' can also be used by a lecturer to check that they have been understood by the audience as seen in the example below. However, this is not very frequent in the corpus.

Example 7.12 'O*kay'* to check comprehension in *SSLCT026*

so now can everybody see that okay

7.6.10 Names

Anonymised names, listed as '*namex'* is number 50 on the wordlist. A concordance search sees '*namex'* in examples to introduce oneself or introduce a guest speaker or in an announcement to talk about other lecturer.

Example 7.13 '*Namex'* in Lecture Introduction Corpus Introduce oneself sub-function in *LSLCT022*

my colleague Dr namex is a lecturer here at the medical school in general practice and he's also a general practitioner in namex and for this session Dr namex has joined us as well who's the admissions tutor for the medical school here so i shall pass over to

7.6.11 Lexical Bundles

The frequent functional words in the word list: articles, pronouns, conjunctions, prepositions and referring items *'it', 'this'* and '*that'* all point towards the operation of the idiom principle (Sinclair, 1991), where the most frequent words in language have virtually no

meaning or semantic weight but have many collocates. Therefore in exploring this, it is interesting to examine two and three word clusters that can be found in this genre.

Biber, et al (2002) list 14 categories of most frequent lexical bundles found in conversation, of which the most prevalent type of lexical bundle in conversation is a clause fragment, consisting of a subject pronoun followed by a verb phrase. They define lexical bundles as word combinations which recur frequently in a given register, at least ten times per million words and must occur in 5 different texts in the register to exclude individual reader/writer idiosyncrasies. Three word bundles are considered as extended collocational association while four, five and six are more phrasal and less common.

Lexical bundles are also called multi-word units or chunks in other studies (McCarthy and Carter, 2006). It is interesting to note that they are retrieved whole and not created anew each time used which enables effortless accuracy. While some lexical bundles operate either as sentence frames to which new content may be attached (for example, *you're gonna*), some are used with pragmatic functions (for example, *or whatever,* used to refer vaguely to shared categories). Furthermore, McCarthy and Carter (2006) observe that they are typically spoken quickly as one tone unit and thus part of phonological fluency as well as lexico-grammatical fluency. The rest of the utterance which comprises of the newly synthesized, non-chunked content elements can be spoken more slowly without damaging fluency. Thus, alongside individual words which characterise this genre, the identification of the lexical bundles will provide a more in depth description of the language used in lecture introductions.

Biber, Conrad et al's (2002) corpus findings show that both conversational and academic prose contain a large stock of different lexical bundles, with conversation containing more lexical bundles than academic prose. Also they also found that there are ten

times more three word lexical bundles than four word lexical bundles and similarly there are ten times more four word lexical bundles than five word lexical bundles. Table 43, Table 44 and Table 45 shows the difference between the top ten 2-word, 3-word and 4-word lexical bundles related to the word '*the*' in the Lecture Introduction Corpus.

Table 43 Top ten 2-word clusters in Lecture Introduction Corpus related to '*the*'

N	Cluster	Freq.	Length
1	OF THE	503	2
2	IN THE	291	2
3	THE THE	153	2
4	AT THE	141	2
5	AND THE	139	2
6	ER THE	135	2
7	TO THE	118	2
8	ON THE	103	2
9	THE FIRST	94	2
10	THE ER	92	2

Table 44 Top ten 3-word clusters in the Lecture Introduction Corpus related to '*the*'

N	Cluster	Freq	Length
1	ONE OF THE	36	3
2	THE THE THE	32	3
3	THE ER THE	31	3
4	SOME OF THE	29	3
5	AT THE END	26	3
6	LOOK AT THE	22	3
7	THE END OF	21	3
8	OF THE LECTURE	20	3
9	THE U K	20	3
10	THE SORT OF	19	3

Table 45 All the 4-word clusters in the Lecture Introduction Corpus related to '*the*'

N	Cluster	Freq.	Length
1	AT THE END OF	15	4
2	IN THE U K	14	4

Table 43 reinforces the idea of the Idiom Principle where the words do not make any sense on their own. While Table 44 and Table 45 contain phrases which are comprehensible, however the meaning varies depending on the context it is in. Tables 43, 44 and 45 also show that longer lexical bundles are less frequent in the Lecture Introduction Corpus. As the corpus of this study is one which is small and it would be impossible to impose such strict criteria of analysis according to Biber, et al's (2002) strict criteria of at least ten times per million words and occurring in 5 different texts in the register). Lexical bundles in this study are based purely on frequency of co-occurrence, and that three word lexical bundles occurring more than ten times in the whole corpus will be discussed in this section

The discussion on lexical bundles which follows is limited to words occurring in the word categories discussed previously: pronouns, prepositions and '*to look at'*.

7.6.11.1 Pronouns and lexical bundles

Biber, Conrad et al (2002a)'s corpus findings of most common three word lexical bundles in conversational prose per million words, in their corpus are: *I don't know* (over 1000 occurrences), *I don't think, do you want* (over 400 occurrences) , *I don't want, don't want to, don't know what, and I said, I said to, I want to, you want to , you have to, do you know, you know what, have you got, what you do, I mean I, have a look* (over 200 occurrences). Also the most common three word lexical bundles in academic prose per million words, listed in their corpus are *in order to, one of the, part of the, the number of, the presence of, the use of, the fact that, there is a, there is no.*

The three most frequent three word lexical bundles (occurring ten or more times in the whole corpus) found in the Lecture Introduction Corpus also listed by Biber et al. (2002a) are

from conversational prose: *I want to, I don't know, I don't think, and I said, you want to,* and one from academic prose: *one of the*.

Table 46 Pronoun (3-word) lexical bundles found in Lecture Introduction Corpus

I clusters		You clusters		We clusters	
N Cluster	Freq.	N Cluster	Freq.	N Cluster	Freq.
1 I WANT TO	36	1 YOU WANT TO	19	1 WE LOOKED AT	11
2 I'M GOING TO	11	2 IF YOU WANT	13	2 WE HAVE T	10
3 ER I THINK	11	3 YOU IF YOU	11		
4 AND ER I	11	4 YOU CAN SEE	11		
5 I DON'T KNOW	10				

The top pronoun 3-word lexical bundles related to '*I', 'You'* and '*We'* in In the Lecture Introduction Corpus can be seen in Table 46. An examination of concordance lines of the lexical bundle '*I want to'* reveal that although it is not used specifically by a particular sub-function nor any discipline, it is however used 26 of 36 times in the , *Indicate Scope* and *Outline Scope sub-function* collectively making it used mostly but the *Set Up Lecture function* as seen in Table 47.

Table 47 Distribution of '*I want to'* in *Announce Topic*, *Indicate Scope* and *Outline Scope sub-function* according to discipline

I want to	Announce Topic sub-function	Indicate Scope sub-function	Outline Scope sub-function	Total
Life Science	0	2	6	8
Arts and Humanities	3	6	1	10
Social Science	0	0	1	1

Physical Science	3	0	4	7
Total	9	8	12	26

7.6.11.2 Prepositions and lexical bundles

A concordance search of '*in'* reveals that the highest occurring immediate right collocate is '*in terms of*' occurring 33 times (Table 48) . Also a concordance search of '*of*' reveals that the highest collocate is '*in terms of*' occurring 35 times (Table 49).

Table 48 Three word clusters with *'in'*

N	Cluster	Frequency
1	IN TERMS OF	33
2	IN THE U	15
3	THE U K	15
4	ER IN THE	11
5	IN OTHER WORDS	11
6	IN TERMS OF THE	10
7	TERMS OF THE	10
8	IN THE LAST	10

Table 49 Three word clusters with '*of*'

N	Cluster	Frequency
1	IN TERMS OF	35
2	A LOT OF	34
3	ONE OF THE	31

4	SOME OF THE	30
5	A SORT OF	22
6	THE SORT OF	18
7	FIRST OF ALL	18
8	THE END OF	17
9	PER CENT OF	15
10	AT THE END	13
11	THE HISTORY OF	13
12	TERMS OF THE	13
13	PART OF THE	13

The word '*in'* interestingly occurs with '*of*" to make this cluster, where '*of*" is the highest occurring preposition in this corpus and positions second in the wordlist. In Biber et al's (2004)'s functional classification of common lexical bundles, '*in terms of* (+ *the)'* comes under 'referential expressions' relating to 'specification of attributes' in particular 'intangible framing attributes'. It is seen as occurring frequently in university teaching, textbooks at the rate of 40-99 per million words and also academic prose at 20-39 per million words. Referential bundles usually identify an entity or single out an attribute as important in relation to a head noun. Similarly, in the Lecture Introduction corpus, '*in terms of"* can be seen used to describe further something mentioned, which gives the impression that it is important, as seen in the Example 7.14:

Example 7.14 *'In terms of'* as a referential bundle specifying attribute in *SSLCT010 and SSLCT022*

SSLCT010 : now in terms of what we expect from you from this course i guess Steve probably may have already given you some idea the course tries to tie in economic theory quite heavily with er policy and policy aspects so we will be using theoretical models quite well quite a lot as *SSLCT022* : one should also note that the first acknowledged racist murder in Britain in the post-war period er occurred in nineteen-forty-eight in Camden in London there was also a historical legacy of recognizing the problem *of* race relations as we saw in last week's lecture in terms of the antagonisms that had existed between earlier minority groups like the Irish and the Jewish communities and the indigenous white community in Britain

It has to be noted also that '*in terms of*' was used four times by a social science lecture in the lecture introduction. Although it can be seen as an idiosyncratic use by a particular individual, this high use of a lexical bundle by an individual lecturer contributes towards the argument that lexical bundles are important building blocks of discourse associated with communicative functions, in this example academic discourse with regard to the lecture introduction.

A search on '*on'* clusters does not reveal many examples with only '*and so on'* found 7 times and '*move on to'* found 6 times. Though the numbers are not high, the clusters suggests movement from one topic to another, in an organisational manner.

But a cluster search of '*at'* (Table 50) reveals a longer list of clusters compared to the other frequently occurring prepositions. The highest three word cluster '*to look at'* is discussed further

Table 50 Three word clusters with '*at'*

Cluster	Frequency
TO LOOK AT	25
LOOK AT THE	21
AT THE END	19
LOOKING AT THE	11
WE LOOKED AT	10

7.6.11.3 '*To look at'*

It is interesting that Biber et al (2002) note that '*look at'* is the most common prepositional verb in conversation and fiction, as is also found in this corpus. It can be used in two ways which is either to direct the attention of others or to describe actions involving sight. With lecture introductions, it is the first use which dominates the corpus as naturally in a lecture introduction, a lecturer would direct the attention of the audience to the topic of the day or highlight important parts of the lecture. '*To look at (+ the)'* is categorised in Biber et al's (2004) functional classification of common lexical bundles as 'discourse organiser' under 'topic introduction /focus'. Topic introduction bundles signal that a new topic is being introduced.

Example 7.15 '*To look at'* in the Lecture Introduction Corpus, to direct the attention of the audience in lecture introduction *PSLCT023* and *SSLCT010*

PSLCT023 : er the second thing we're going <u>to look at</u> is the er behaviour of horizontal tension structures and er the simplest form of that is just a structure hanging under its own weight (*Outline Scope sub-function*)
SSLCT010 : okay also once we've discussed that sort of policy framework issue we also are going to have <u>to look at</u> how monetary policy actually works *(Indicate Scope sub-function*)

Example 7.15 shows '*to look at'* used to direct the attention of the audience in lecture introduction. The example in lecture introduction *PSLCT023, 'to look at'* is used in *Outline Scope sub-function,* just before the lecturer announces one of the lecture sub-topics or lecture scope. In lecture introduction *SSLCT010* it is used in *Indicate Scope sub-function,* again just before announcing a lecture scope. These two sub-functions are both *Set Up Lecture Framework functions* which has the main communicative purpose of setting up the lecture framework, to direct the 'lecture-as-object' to the audience (Thompson,1994). A concordance search of this lexical bundle sees it occurring 25 times in the whole corpus, and 22 times of that, '*to look at'* precedes a lecture topic or scope.

7.7 Analysis of the word 'of'

As part of the corpus analysis of the top 30 words in the Lecture Introduction Wordlist, this section deals with the analysis of the word '*of*' in relation to the study by Groom (2010) which examined the use of '*of*' from a 3 million word corpus of academic journal articles of the history discipline. His analysis of closed-class keyword showed that it had its own

meaning and values in accordance with the disciplinary discourse community of history. Groom argues:

> for the analysis of closed-class keywords, as opposed to the popular open-class keywords as they are considered to be entirely amenable to empirical semantic analysis in which reasonably robust claims can in fact be made of the analysis of surprisingly small numbers of random selected lines. Furthermore, they offer much greater coverage of phraseological data in a specialized corpus in both quantitative and qualitative terms. (Ibid., p.73)

Therefore, a close examination of the word '*of*' as used in Lecture Introductions will hopefully add to the description of this genre and its grammatical use according to the different disciplines. This small scale study of the use of closed-class keywords like '*of*' can be related to the study of lexical bundles in academic writing by different disciplines by Hyland (2008) who suggests that the study of lexical bundles can offer insights into a crucial, and often overlooked, dimension of genre analysis.

A structural analysis of a random 100 concordance sample of '*of*' in four disciplinary domains of the Lecture Introduction corpus was conducted. The structure categories 'n of N' and 'prep N' and 'other' were taken from Groom's (2010) study. Examples of *'n of N'* structures as identified by Groom's study and structural sequences of the difference disciplines can be seen in Table 51.

Table 51 Example of ‘n of N’ structures found in the lecture introduction sample

Structural sequence	Concordance Line	Text	Discipline
Quantity of phenomenon	we can observe the number of cases of flu per year in the last five years	lslct015intro.txt	Life Sciences
Quantity of phenomenon	er i would think probably about forty per cent of the members of staff were Marxists E P Thompson	ahlct025intro.txt	Arts and Humanities
Quantity of phenomenon	piece of work it's your own okay twenty per cent of the marks is allocated to group performance	sslct032intro.txt	Social Science
Quantity of phenomenon	lot of the stuff we do isn't late well second half of the twentieth century sometimes if you try to	pslct039info.txt	Physical Science
Property of phenomenon	we'll review the basic aspects of er protein structure and go on to	lslct030intro.txt	Life Sciences
Property of phenomenon	er we saw last time er the history of Agricola within Britain through	ahlct005intro.txt	Arts and Humanities
Property of phenomenon	today is The Criminal Justice and Public Order Act of nineteen-ninety-four er which er as you should	sslct014intro.txt	Social Science
Property of phenomenon	and this gave an indication that the principal acts of energy deposition are in the form of ionization	pslct005intro.txt	Physical Science
Conceptualisation of phenomenon	number can be uniquely expressed as a product of prime powers we've also taken time out to stud	pslct025intro.txt	Physical Science
Process of object	is that drop as a result of the introduction of folic acid or is it just random variation in	lslct016intro.txt	Life Sciences
Process of object	first of all by saying a little bit about the life of of Max Weber who was he who wrote The Protestant Ethic	ahlct027intro.txt	Arts and Humanities
Process of object	students of politics to ask who does the creation of the E-U benefit who is it likely to to to assi	sslct024intro.txt	Social Science
Text of content	it's all in the books there are there are books of glomerular pathology	lslct034intro.txt	Life Sciences

Text of content	and then in the last two weeks i gave you an account of art histories from the nineteenth century to the twentieth century really and the early twentieth century all of which in	ahlct031intro.txt	Arts and Humanities
Authority of domain	ity so i've got this grand title of being Director of G-P Undergraduate Medical Education [laughter]	lslct020intro.txt	Life Sciences
Authority of domain	move from assessing mo-, we just look at the Bank of England setting interest rates through to affe	sslct10intro.txt	Social Science

The results found of the structural analysis of the 100 concordance samples of '*of*' in the lecture introductions of the four disciplinary domains sees that a majority of the 'of' structures belong to the 'n of N' category (See Table 51). The structure category 'fixed phrases' was added to the analysis as it was observed that a number of '*of*' phrases we found; *first of all, sort of, of course* and *kind of*. Groom's (2010) study which was based on written History of Art journal articles found a higher proportion of 'n of N' structures of 89.33% compared to the other structures. As the present study is a spoken academic genre, this explains the findings of the fixed phrases (*first of all, sort of, of course* and *kind of*) which amount to an average 13.25% of the sample.

Table 52 Structural analysis of 100 concordance samples of '*of*' in the four disciplinary domains

Structure	Life Sciences (%)	Arts and Humanities (%)	Social Science (%)	Physical Science (%)	Average (%)
n of N	86	66	71	62	71.25
prep N	4	2	12	19	9.25
Fixed phrases	12	30	5	6	13.25
Others	0	1	13	13	9

The frequency of fixed phrases highlighted in the concordance sample seen in Table 53 sees that it is used by the Arts and Humanities discipline with 56.6% of the total use.

Table 53 Frequency of fixed phrases (first of all, sort of, of course and kind of) in the concordance sample

Fixed phrase	**Life Science**	**Arts and Humanities**	**Social Science**	**Physical Science**	**Total**
First of all	5	6	0	2	13
Sort of	4	14	2	0	20
Of course	3	8	3	1	15
Kind of	0	2	0	3	5
Total	12(22.6%)	30 (56.6%)	5 (9.4%)	6 (11.3%)	53(100%)

The use of the fixed phrases found in the sample are interesting to see as it gives further description of the language used in lecture introductions. The meaning of the fourteen examples of '*first of all'* as found in the sample functions to signpost the direction in which a

stretch of talk is going, meaning 'the first thing the speaker wants to say' (Carter and McCarthy, 2006). This phrase realises the *Outline Scope sub-function* where the lecturer the lecturer lays out the sequence of the lecture.

The use of 'sort of' can have a few meanings. The meaning attached to the use in the twenty concordance samples is that your description of something is not very accurate, in some way or some degree like the item described (Cobuild, 2006). The use of 'sort of' is a rather informal use of language and its use can be seen to soften the imposition of items to be discussed in the lecture as seen in the examples below:

lslct011: er today now er rather than have sort of all a lot of theoretical stuff about the epidemiology of disease and genetics of disease and so on just trying to show you how actually er clinicians cope with disease and try and relate that to the science to the biology underlying the pathology of the disease and the nature of the treatments they're using …

sslct025: er what i want to do today largely is concentrate er on the text itself which is a very complicated text and i think not a from slightly difficult text well i'll just begin by a a slight sort of er introduction when i arrived at namex er what seems like a lifetime ago but was only thirty-one years ago in nineteen-sixty-eight …

Similarly to 'sort of', the use of 'kind of' was seen to used when you are trying to explain or describe something, but you cannot be exact. Although only five examples found in the sample, this suggests that in spoken academic language, lecturers are processing their thoughts as they deliver their speech and that in comparison to spoken written language, there seems to be an allowance for these fixed expressions to be used.

Pslct006: the first question is er why should one er choose titanium dioxide as a a a thing to do this er there are various other things that one could have maybe thought about but er i'll put down er almost a kind of summary of the lecture

The last fixed phrase also can be seen as softening attempt by the lecturer in establishing shared knowledge, or what is perceived to be shared knowledge between lecturer and students. All fifteen examples of 'Of course' is used to show that what the lecturer is saying is obvious or already known, used by all disciplines though the most by Arts and Humanities in the sample taken.

ahlct032: but i think a highly significant point that underpins the bulk of landscape production in nineteenth century France and indeed elsewhere as well and it's this landscapes are produced in and for the city landscape is an essentially urban genre and wherever artists may physically paint their pictures which is of course very often in urban studios the controlling institutions er audiences exhibitions dealers all belong to Paris or Rome or London or some other large urban centre and indeed one might say that the very idea of the rural the very idea of the city is construc-, er s-, of of the country i beg your pardon is constructed in the city

lslct030: re going to only cover a very small proportion of of er structural and functional relationships in proteins proteins are of course the sort of workhorses the machines of the cells and they perform all of the reactions that are compatible with life including those ones listed there er and of course there are very many relevant medical examples to how the structure and function of a protein is related to the normal physiology

To summarise, the use of 'of' in a random sample of lecture introduction analysed (100 concordance lines each in four disciplines of the Lecture Introduction corpus) contains a high proportion of 'n of N' structures, as found in Groom's (2010) on the study on 'of' in a corpus of History of Art journal articles. Interestingly, analysis of the data shows the use of four particular fixed phrases *first of all, sort of, of course* and *kind of* which amounts to13.25% of the sample. These fixed phrases are often used in spoken language with *first of all* functioning as a sequence marker of what the lecturer wishes to talk about, while *sort of, of course* and *kind of* can be seen to function to minimise the face threat between lecturer and student. No particular disciplinary use could be observed but there was high use of the fixed phrases by Arts and Humanities in the sample compared to other disciplines. However, further analysis from the corpus needs to be run to substantiate any claims.

7.8 Chapter discussion and summary

As a member of the academic discourse community, words appearing in the Lecture Introduction wordlist confirms our generic knowledge of what a Lecture Introduction is by providing empirical evidence of what would otherwise be intuitive.

The top thirty frequently used words in Lecture Introductions are made up entirely of function words (except '*going'* and '*er'*). These function words conform to the idiom principle where the most frequent words in language have virtually no meaning or semantic weight but have many collocates. An examination of the top 200 words of the Lecture Introduction wordlist sees it as sharing features of other wordlists compiled based on spoken conversational prose and spoken academic prose. It also contains other high frequency words which reflects this unique genre.

Seen in this chapter, the Lecture Introduction wordlist shares similarities with conversational prose in that it features heavily the pronouns *'you'* (number 9), '*I'* (number 10) and '*we'* (number 15). Further examination of the semantic referents of the pronouns '*I'* , *'you'* and '*we'* are used by lecturers flexibly according to the different pragmatic meanings intended in reflecting the speakers attitude and intention - for example, '*You'* has 3 semantic referents: 1) students 2) anyone 3) anyone in the field. Also further down the wordlist also exhibits a number of contracted pronoun + auxiliary verbs: *it's* (number 33), *I'm'* (number 34), *we're* (number 58), *that's* (number 59), *we've* (number 98), *I've* (number 103), *there's* (number 110), *I'll* (number 127), *we'll* (number 128), *you're* (number 157), *they're* (number 169).

As conversational prose, the Lecture Introduction wordlist sees a number of cohesive devices through conjunctions *and* (number 4), *so* (number 12), *but* (number 27), *as* (number 24). '*And'* and *'but'* are observed to serve as 'parataxis' which is the tendency to tack new sentences on to previous ones by the use of coordinating conjunctions like '*and', 'or', 'bu't* or no conjunction at all (Bygate 1987).

Also further down the wordlist found are high occurring lexical verbs in spoken language *know (*number *48), talk (*number *76)* and *say (*number *78). 'Know'* and *'say'* is listed by Biber, Conrad et.al (2002) as one of the twelve most common lexical verbs in English in the LWSE Corpus. Interestingly '*you'* appears with *'know'* in more than half of the concordance search of *you* in making the set phrase '*you know'* suggesting that lecturers satisfy the 'positive face' of students by indicating similarities with them.

Being a spoken academic genre, the lecture introduction wordlist also shares similarities with academic prose. One is the high use of prepositions which is true of academic prose: *of*

*(*number *2), in (*number *7), on (*number *16), at* (number 17). The cluster '*in terms of'* occurs 33 times in the corpus. Biber et al's (2004)'s functional classification of common lexical bundles sees '*in terms of* (*+ the')* comes under 'referential expressions' which is seen as occurring frequently in university teaching and textbooks. Referential bundles usually identify an entity or single out an attribute as important in relation to a head noun.

Also similar to academic prose high use of a group of 'textual markers' – the impersonal pronoun '*it' (*number *8)*, the demonstrative pronoun '*this' (*number *13)* and '*that' (number 14).* Carter and McCarthy (2006) claim that these are 'textual signals' popularly used in spoken academic English and considered to be an important aspect of academic style by guiding a listener around a text and signal how they the speaker would like to be interpreted.

Other items on the wordlist that tells us about the Lecture Introduction genre is the one lexical verb '*going'* in the top 30 of the wordlist is a keyword of *Announce Topic sub-function.* This function sees the lecture as a textual object, giving information about topic, scope, structure and aims of lecture. It is realised through the most frequent lexical bundle in the *Announce Topic sub-function*: *be going to +topic* (to be discussed in section 8.3*).* Also present in the wordlist are '*numbers#*' (number 25) and anonymised names '*namex' (*number *50)* which shows that lecture introductions is about providing information to students, regarding people, things, places or events. The wordlist also provides a platform for the discussion of lexical bundles related to the lecture introduction; for example, lexical bundles associated with pronouns ('*I want to', 'You want to'* and ' *I'm going to')* and prepositions ('*in terms of'* and *'to look at')*. An analysis of the word 'of' from a sample of lecture introduction corpus revealed that there was a large proportion of 'n of N' structures as found in academic journals but also interesting is the use of fixed phrases associated to spoken language *'first of all', 'sort of', 'kind of'* and *'of course'* of this spoken academic genre.

CHAPTER 8 CORPUS ANALYSIS AND DISCUSSION OF SET UP LECTURE FUNCTION

8.1 Rationale for the Corpus Analysis for this chapter

Corpus Analysis in the previous chapter discussed a wordlist of the most frequent words in the Lecture Introduction Corpus in providing a description of the words that characterise the lecture introduction genre. This chapter continues the corpus analysis of the three sub-functions within the *Set Up Lecture Framework function: Announce Topic, Indicate Scope and Outline Scope sub-function* (Figure 32) using Wordsmith Tools 5 to add to the description of the Lecture Introduction Framework proposed. The *Set Up Lecture Framework function* is the focus of analysis as it is the highest used main function in the corpus with 41% of total functions used (see section 6.3) and all three sub-functions are the top three used sub-functions in the Lecture Introduction Corpus.

Figure 29 *Set Up Lecture Framework function*

	Sub-functions of Set Up Lecture Framework function
AT	Announce Topic
IS	Indicate Scope
OS	Outline Scope

Analysis of personal pronouns (*I, you, we* and its variants) of the *Set Up Lecture Framework function* begins the corpus analysis of this chapter. The use of pronouns is

considered an important indicator of how audiences are conceptualized by speakers in academic discourse (Fortanet, 2004b). The analysis of first person and second personal pronouns aims not only to outline the frequency of the main pronouns used in the sub-function but also at their semantic referents and variants, which includes the subjective, objective and possessive forms. These were all determined on a contextual basis of which the personal pronouns occurred by going through each concordance line manually. All the referents for the four disciplines were pooled and compared. The analysis aims to highlight and create awareness of disciplinary difference, where present, the use of personal pronouns in realising a communicative function. Its use according to disciplines will hopefully provide an insight into the relationship between lecturers and students as seen in the disciplinary domains as used through the most frequent occurring main function.

Following the analysis of pronouns is the analysis of different sub-functions and begins with a discussion of the results of Keyword Analysis. According to Hunston (2002), Keywords are words which are significantly more frequent in one corpus than another and a means of carrying out this is by using the corpus investigation package Wordsmith Tools 5 which can automatically compare two corpora, usually a smaller more specialised one with a larger , more general one. It is a useful program used in many applied linguistic analyses, for example, Scott (1997), Culpeper (2009), Holmes and Nesi (2010), Johnson and Ensslin (2006), Xiao and McEnery (2005), Seale et al. (2006), Poos and Simpson (2002), Mudraya (2006), Fuentes (2001), Xiao (2009) and Flowerdew (2004b) to name a few. Keyword analysis looks at the concept of 'Keyness' and 'P' which together tells the researcher how distinctive a word is compared to a reference corpus. When 'keyness' is high and 'P' is very low, the word is called a keyword. The program generates a key-word list which includes items that are either significantly frequent (positive key words) or infrequent (negative key

words) which is useful in describing the genre of lecture introductions. Wordsmith Tools also calculates statistical significance, a test of 'keyness', which is especially useful for the analysis of corpus data because, being based on a log-likelihood test , it is not predicated on the assumption that data have a normal distribution (McCarthy, 2010).

This chapter will use keyword analysis on the three sub-functions of the *Set Up Lecture Framework function: Announce Topic sub-function, Indicate Scope sub-function and Outline Scope sub-function*. In searching for key words that characterise the sub-functions of *the Set Up Lecture Framework function*, this chapter compares the frequency list of the sub-functions with the BASE whole lecture corpus. It was decided to use the whole BASE corpus as a reference corpus in order to highlight the unusual vocabulary in Lecture Introductions and to characterise the genre of lecture introductions. This echoes research by (Gledhill 2000 ,p.119) who compared sub corpora of different sections of research article to the a corpus of the whole research articles. By doing this; 'Salient items are therefore an internal measure, typical of the rhetorical section rather than of the corpus as a whole.'

Baker (2004) highlights that in addition to being a rapid and useful way of directing researcher to elements of the text that are frequent or infrequent, keyword analysis has the merits of removing researcher bias and also paves the way for further complex linguistic analysis. However, the language patterns from the analysis is subject to researcher interpretation, as with this study on lecture introductions.

Keyword analysis is followed by discussion of marked grammatical structures observed in the sub-functions, alongside observations of disciplinary differences where they occurred. This is again determined by looking at individual concordance lines of the sub-functions which in the earlier part of analysis, has been agreed by two raters (English PhD researchers

with Applied Linguistics background) to mitigate the researcher's analytical subjectivity. The results from corpus analyses hope to add to the Lecture Introduction Framework derived from genre analyses to highlight disciplinary differences of the four disciplinary fields.

8.1.1 Overview of the chapter structure

The present chapter 8 focuses on the corpus analysis of the *Set Up Lecture Framework function*. It begins with the analysis of the frequency and semantic referents of the first (I and *we)* and second personal pronouns (you) and their variants in the disciplinary domains. This is followed by individual keyword analysis of the different sub-functions of the *Set Up Lecture Framework function: Announce Topic sub-function, Indicate Scope sub-function and Outline Scope sub-function.* Frequent lexico-grammatical features seen frequent in the individual sub-function are then discussed. Where observed, disciplinary differences are highlighted.

8.2 Analysis of personal pronouns in *Set Up Lecture Framework function*

How a lecturer uses first person and second person pronouns is central to the corpus analysis of the sub-functions of the lecture introduction genre. The communicative function of *Set Up Lecture Framework function* is essentially about the lecturer informing the students of what the topic of the lecture is. However, despite the obviousness of the communicative function of this sub-function, *Set Up Lecture Framework function* does not occur in every single lecture as lecturer might not find it necessary to include it. The reasons why this function may not occur in every lecture may vary from it being seemingly obvious to the students as they may have an outline of lectures of the course, or the topic might be written on the board or

projected from a slide. This analysis examines how the lecturer and students are referred to using this sub-function and whether disciplines have different practices.

The three groups of pronoun referents were identified: *I, You* and *We* and the contracted forms as can be seen tables 50, 51 and 52. This is done by analysing the texts and examining the context of the discourse. The semantic referents which refer to the lecturer as an individual use the words *I/I'm/I'll/my/me/mine* , semantic referents which refer to the lecturer collectively use the words *we/we're/we'll/our/us/ours* and to the speaker as *you/your/yours.*

8.2.1 First person pronoun (*I* and *we*) in *Set Up Lecture Framework function.*

Table 54 Referent of *I/I'm/I'll /my/me/mine* in Set Up Lecture Framework in the different disciplines.

I/I'm/ I'll/ my/me/mine	Arts and Humanities		Social Science		Life Science		Physical Science		Total	
	N	%	N	%	N	%	N	%	N	%
1.Lecturer	72	98.63	45	100.00	75	96.15	35	97.22	227	97.84
2.Lecturer and students	1	1.37	0	0	2	2.56	0	0	3	1.29
3.People in general	0	0	0	0	1	1.28	1	2.77	2	0.86
Total	73	100.00	45	100.00	78	99.99	36	99.99	232	100.00

In total there were 232 referents of '*I'*, which is slightly more than '*we'* totalling 197 referents. This result to some extent supports earlier research in pronouns in terms of '*I'* being the most used pronoun.

However, the finding that '*we'* is nearly as frequent as '*I'* diverges from previous studies. Previous research on pronouns by Fortanet (2004b) found that '*we'* is only used half as many times as other pronouns such as *'I'* or '*you'* in a corpus of 770,353 words from the MICASE. This contrasts with (Rounds, 1987a) research 15 years prior which sees pronouns as a means of establishing and maintaining rapport and audience involvement. Her study on a corpus of Mathematics lectures saw successful lectures using the pronoun '*we'* double that of '*I'* or '*you'*. A possible reason for the high percentage of '*we*' found by Rounds (Ibid., p.63), can be related to recent tendencies observed in academic language. 'It may not be entirely co-incidental that during the last 20 years, the use of ' *I* has become more acceptable in research articles in a number of fields.'

More recent research on the effect of lecture size on the use of pronouns in lecture introductions by Lee (2009) suggest that class size does affect lecturers' discursive decisions and found that in lecture introductions, the frequencies of both pronouns *'I'* and '*you'* are higher in small lectures than in large lectures. To him, a large audience seems to compel experienced lecturers to use more of certain discursive strategies (for example, the use of the pronoun *we*) as a way to create positive and friendly learning environments in settings that may not be particularly favourable for establishing such conditions.

In the most recent research of the use of pronouns in small lecture conclusions, Cheng (2012) found that the first-person singular pronoun '*I'* and its variants (i.e., *my, me, and mine*) occur most frequently followed by the second–person pronoun '*you'* and its variants (i.e., *your and yours*), whereas the first-person plural pronoun '*we'* and its variants (i.e., *our, us, and ours*) occur least frequently. The different results to Lee's (2009) study can probably be explained by the fact that a different genre is analysed and that its corresponding

communicative functions differ. This indicates that the relative frequencies of pronouns may vary significantly between the sub-genres of an academic genre like the lecture.

In the *Set Up Lecture Framework sub-function*, mostly all of the referents of '*I'* (97.84%) refer to the lecturer him/herself which confirms the nature of the relationship between the lecturer and student whereby the lecturer is in a position of giving knowledge or delivering information to the students and exerting this authority figure by owning the lecture and explicitly imparting information to students and leading the lecture.

A marked use of *'I'* is seen through the three occurrences of '*I'* to lecturer and students as seen in Example 8.1 and two occurrences of '*I'* to people in general as seen in Example 8.2.

Example 8.1: *'I'* to refer to lecturer and students

ISlslct033a before we talk about acute renal failure tell me what er tell me what medicine's all about

In Example 8.1, the pronoun '*me'* follows the lecturer starting off the lecture using the referent inclusive '*we'*, meaning lecturer and students. Later, when the lecturer refers to '*me'*, the lecturer actually refers not only to the lecturer but all the other students in the large lecture hall too. As talking in front of a big lecture hall can be intimidating for some students, the lecturer seeks to minimise the threat to the students positive face by making the request sound like a personal conversation. By not nominating a particular student to answer the question, hopefully the lecturer will get an answer. As conversations usually start from common knowledge or topic, the lecturer can work the lecture from students' prior knowledge.

Example 8.2: *'I'* to refer to people in general

Extract from (*OS)PSLCT017*

let let me make that a bit more concrete suppose we're we we are a workforce the the eight or nine people of us in this room are a workforce er then we can all agree that jointly we might want to get together and form some some kind of bargaining unit let's call it a union might not always be formalized through channels like unions in the belief that if all of us in this workforce are are a m-, are a part of this group then our collective bargaining power is greater than our individual bargaining powers depending upon the nature of the work we do perhaps but if that is the case then we can hope that by exerting that kind of bargaining power we can raise our wage if we're able to do that typically in labour markets any wage increase that we're able to bargain is then bai-, paid to all the members of that workforce not only to those people who have got themselves together er and and obtained through bargaining that wage so that generates a free rider problem for each and every one of us each one of us thinks e for nineteen-ninety where are we now nineteen-ninety-nine roughly well i'll let the other guys get together and spend their evenings and and their resources on forming this union and maybe also risking the wrath of employers depending on the attitude of of firms to unions and if they're successful in raising the wage i will then have a higher wage as well without incurring the costs so there's especially when there's a large workforce not when there's a small group like this perhaps but especially when there's a large workforce that kind of free rider incentive that kind of prisoner's dilemma problem can undermine the generation of u-, er of unions of bargaining groups and so we'll be looking at questions to the ex-, er about have y-, have economists in the literature adequately explained that kind of thing and that's particularly important in a context in which union membership in economies like the U-K and in Europe generally er have observed such dramatic changes in the in the kind of levels of membership U-K is not necessarily representative throughout Europe but in the U-K in nineteen-seventy-

nine something like fifty-five per cent of all workers were members of trade unions anyone know for the figure okay so that's one of the er two issues i want to cover in lecture five

Extract from (*IS)LSLCT009*

a multiplex thinker according to Chip Delany is someone who not only takes into account what is and the different axes but also what could be the whole range of possibilities around what is and i suspect i'll be doing a lot of talking with you individually about this but i'm talking about the fa-, space of possibilities around what actually happens if you go to an historian an American historian and you say tell me about Abraham Lincoln and what happened in the theatre and he says the bullet the calibre of the bullet was so and so the the assassin was called such and such this is what happened that's simplex if he says but the same time there were twelve other people trying to assassinate him and the security arrangements had been bunked up and the theatre had this you think okay that's pretty complex but if he then goes on to say but if Abraham lin-, if it had not been Abraham Lincoln who had been elected but somebody else this would have happened if Abraham Lincoln had not been shot then this is what i think would have happened to American history that's a bit of multiplex thinking

Interestingly the two occurrences of referent '*I'* in Example 8.2 are similar in where refer to people in general in the context of the lecturer illustrating their point by a short hypothetical narrative. A fictitious persona is used to illustrate the point, which could be generally anyone, made up by the lecturer and has a dialogue talking in the first person and

the soliloquy which illustrates the example using '*me*' and '*I'll*'. This story is for the benefit of the students so they can put themselves in the hypothetical situation and relate to the example better. Interestingly Hyland (2012) cites the use of '*you'* to assign students in hypothetical worlds of action to bring alive examples or cases. Seen in the examples above, it can also be realised by the referent '*I'*.

Table 55 Referent *we/we're/we'll/our/us/ours* in Set Up Lecture Framework function in the different disciplines.

	Arts and Humanities		Social Science		Life Science		Physical Science		Total	
	N	%	N	%	N	%	N	%	N	%
1.Lecturer	12	54.54	5	9.09	20	27.40	0	0	37	18.78
2. Students	1	4.54	0	0	5	6.85	0	0	6	3.94
3. Lecturer and students	6	27.27	50	90.91	37	50.68	37	78.72	130	65.99
4.People in general	3	13.64	0	0	4	5.48	4	8.51	11	5.58
5. People in the field	0	0	0	0	7	9.59	6	12.76	13	6.60
Total	22	99.99	55	100.00	73	100.00	47	99.99	197	100.00

As shown in Table 55, although the largest proportion of the occurrences refer to lecturer and students, four other semantic referents of '*we'* which are the lecturer, students, people in general and people in the field were identified. This is in line with the observation by Biber et al.(2002) that the first person pronoun '*we'* varies according to context. 65.99% of the use of '*we'* as found in *Set Up Lecture function* is the inclusive *we* as seen in Example 8.3.

Example 8.3: *We* to refer to lecturer and students

(AT)AHLCT012

so that's really what we want to think about a little bit today how you yourselves use language in an academic er context

(OS)AHLCT024

i'll just briefly go through what we're going to go through today first of all we're going to talk a little bit about who Ranke was where he came from what his intellectual background was and why he decided to become a historian we'll then talk a bit about the way in which he studied history which is probably the most important thing you'll take away i hope from the lecture but also from your reading and your seminars on Ranke in other words the ideas that changed the way in which historians think about history we'll talk a bit about the kind of history that went before and therefore what Ranke was er reacting against and then we'll finish off by talking a bit about the dangers with er the methods that Ranke wanted to put forward so that's the er plan for today

Perhaps the most interesting results related to the semantic referents of *we* where other referents of '*we'* together constitute approximately 34.01 % of the occurrences, and that there are 5 variety of referents which is more compared to *'I'* or '*you'*.

The marked use of '*we'* to refer to the lecturer himself, instead of using '*I*' is particularly high in Arts and Humanities and Life Science, present in Social Science lectures, totalling 18.78% of the referents. This is however absent in Physical Science lectures.

For Arts and Humanities, there seems to be a preference of using '*we'* instead of '*I'* for the *Set Up Lecture Framework function*. According to Biber et al. (2002), it is regarded common practise in written academia of referring to '*we'* which can mean one of three things.

One being the author of the text, second is the author and readers assuming a common understanding shared by both or third, people in general, similar to the generic pronoun one. Although this definition is about written academic discourse, in my opinion, it does extend to spoken discourse as can be seen in Example 8.4.

Example 8.4 '*We'* to refer to lecturer (one)

(AT)AHLCT038 (meaning 1- author/speaker of text) er right now we said today that we'd talk about Kant

There is also a marked use of exclusive '*we'*, excluding the addressee '*we'* in Life Science. This is contributed to the nature of the discipline whereby there can be more than one lecturer delivering a lecture as seen in Example 8.5.

Example 8.5 '*We'* to refer to lecturer (plural lecturer)

(OS)LSLCT038 and we're all going to introduce ourselves to you so that all of you will be taught by us probably most of us before you qualify even if not directly in the next few months so we thought you'd like to know who we are

'We' is also seen used to refer to the students as seen in Example 8.6 in telling students the objective of the course. At first the student is referred to as *you* but the pronoun later used is *we* on the purpose of communicating these as shared concerns as a course related issue.

Example 8.6: '*We'* to refer to students

(IS)LSLCT015

so the formal objectives of this lecture [sniff] is first that you should be able to distinguish between observed epidemiological quantities such as incidence prevalence incident rate ratio things like that and their true or underlying values and you ought to be able to discuss how observed epidemiological quantities depart from true values because of random variation unless we have large resources and can measure absolutely everybody in a particular population we're interested in we'll only ever see an observed proportion of people with diabetes say and that may or may not be equal to the true prevalence of diabetes in our sa-, in our population but if we selected our sample properly then that ought to give us a fairly good idea of the basic prevalence of diabetes in the population but that basic idea will vary because of natural variation so consequently we want to be able to say something about how our basic idea of prevalence will vary in reality an idea of the scale of the variation will help us with that and statistical theory will help us to do that objective three we want to be able to describe how observed values help us towards a knowledge of the true values and there are two basic statistical ways of doing that certainly in this module at least

'We' can also be used to mean people in general (11 occurrences) or people in the field (13 occurrences), as seen in Examples 8.7 and Examples 8.8. These occur in all disciplines apart from Social Science lectures. In the examples, the lecturer is relating and situating the topic of the lecturer in a larger context of the world, rather than limiting the lecture to the students' lecture hall.

These findings supports Cheng (2012) finding that the pronoun *we* seems to be used in a more flexible way by lecturers and has a variety of referents. In her study, where the lecturer refers to '*we'*, a large proportion of it means inclusive '*we'* (lecturer and students) , but in

large lectures, there was a higher proportion of '*we'* to refer to a larger group of general people, and anyone in the field, compared to small lectures. This suggests that in larger lectures, the lecturer calls to attention the lecture content a lot more and adopts a more formal lecturing style to enhance positive politeness for student engagement and rapport, or mitigate student apathy.

Example 8.7 '*We'* to refer to people in general

(IS)LSLCT019

so why do we need to regulate medical research

(OS)PSLCT017

we'll also be bearing in mind another aspect of that trade and wages literature of course is that that we we know that in the U-K and in the North America there have been tremendous growth in wage inequalities

Example 8.8 '*We'* to refer to people in the field

(AT)LSLCT019

and i'm going to talk to you about abdominal aortic aneurysms so a more clinical flavour and how we use trial error and statistics in a real health problem

(OS)PSLCT017

lecture four then still has that same theme of thinking about er er wages and institutions like unions and and like imperfect competition and more explicitly says well are these things of unions are these institutions are they exogenously determined do we just say some labour markets are unionized let's think about the impact of that or shouldn't we have more of a r-, of

a role in saying well what determines whether we'll observe different kinds of bargaining arrangements in different labour markets.

8.2.2 Second person pronoun (you) in Set Up Lecture Framework function

Table 56 Referent of *you/your/yours* in *Set Up Lecture Framework function* in the different disciplines.

you/your/yours	Arts and Humanities		Social Science		Life Science		Physical Science		Total	
	N	%	N	%	N	%	N	%	N	%
1.Students	27	90	21	87.5	39	67.24	6	23.08	93	67.39
2.Anyone	2	6.67	2	8.33	19	32.76	13	50	36	26.09
3.Anyone in the field	1	3.33	1	4.17	0	0	7	26.92	9	6.52
Total	30	100.00	24	100.00	58	100.00	26	100.00	138	100.00

In the lecture introduction corpus, '*You'* is seen to have three semantic referents: students, anyone or anyone in the field. The largest proportion of refers is to students in three disciplines Arts and Humanities, Social Science and Life Science. However, in Physical Science the largest reference is to 'anyone' (50%) followed 'anyone in the field' (26.92%) and lastly 'students' (23.08%).

8.2.3 Summary of use of first and second person pronouns in *Set Up Lecture Framework function.*

To summarise, the pronouns '*I', 'we'* and '*you'* in the *Set Up Lecture Framework function* are used by lecturers flexibly according to the different pragmatic meanings intended in reflecting the speaker's attitude and intention. These results support Fortanet's (2004b) study which highlights that personal pronouns are important markers of how students and lecturers are conceptualized in academic lectures. For example, the use of '*we'* for speakers and hearers indicates positive politeness while '*I'* and '*you',* on many instances, may have a distancing effect, resulting in Brown and Levinson's (1987) negative politeness.

Another concluding point which this study supports is Cheng's (2012) finding that lecturers make shifts of the use of personal pronouns for pragmatic purposes, where the same pronoun may refer to different referents or different pronouns are used to refer to the same referent. In the *Set Up Lecture Framework function*, although '*I'* is observed to mostly refer to the lecturer in all four disciplines, depending on the context it can refer to lecturer and students or general people. '*We',* on the other hand is observed to have a more referents than '*I'* or *'you'* where it can refer either to the lecturer, the students, the lecturer and students, general people or people in the field. Life Science and Arts and Humanities show more marked uses of '*we'* to refer to the lecturer. For Life Science it may be partly due to the nature of the discipline of having many lecturers in a session, usually working professionals. For Arts and Humanities in BASE, it is the more formal use of '*we'* to refer to the self. Lastly, '*You'* is observed to refer mostly to students in Arts and Humanities, Social Science and Life Science. In contrast, in Physical Sciences 50% of use referred to anyone, followed by anyone in the field and lastly students.

The next session discusses corpus analysis on the most frequent occurring function in the Lecture Introduction: the *Set Up Lecture Framework function*. The three sub-functions which realise this function: the *Announce Topic sub-function, Indicate Scope sub-function* and *Outline Topic sub-function* will be discussed separately according to its distribution according to discipline, keyword analysis and frequent lexico-grammatical items observed.

8.3 Corpus Analysis of the *Announce Topic sub-function*

The corpus analysis of the *Announce Topic sub-function* starts with a discussion of the distribution of the sub-function in the Lecture Introduction Corpus according to the disciplinary domains. This is followed by the keyword analysis of the the sub-function and lastly is a discussion of frequent lexico-grammatical items observed in the sub-function.

8.3.1 Distribution of *Announce Topic sub-function* in the Lecture Introduction Corpus according to disciplinary domain.

73 examples of use of *Announce Topic sub-function* were found in the BASE Lecture Introduction Corpus. The distribution according to discipline is as seen in Table 57. The first column is raw frequency and the second column is a percentage of the raw frequency per total of sub-functions used in the individual discipline as used in Chapter 6. It can be concluded that *Announce Topic sub-function* is used by all disciplines in their lectures and used rather equally among all sub-disciplines, although most by the Physical Science discipline.

Table 57 *Announce Topic sub- function* uses found in the BASE Lecture Introduction Corpus according to disciplines

Sub-Function	LS	% of LS	AH	% of AH	SS	% of SS	PS	% of PS	Total
AT	21	11.73	16	12.03	17	13.82	19	22.89	73/520

8.3.2 Keyword analysis of the *Announce Topic sub-function*

The results of keyword analysis conducted on the all of the 73 *Announce Topic sub-functions* compared to the Lecture Introduction corpus can be seen in Table 58. The Keywords typify what lecturers say when announcing their lecture topic which can be summarised in the four words generated. *Today* refers to time aspect, while *talk* and *going* refers to the verb of action of the lecturer. Interestingly the four words can easily be strung together to make a sentence to deliver this particular sub-function. E.g. *Today* I/we are *going* to *talk about* topic.

Table 58 Keyword analysis results for the *Announce Topic sub-function*

N	Key word	Freq.	%	RC. Freq.	RC. %	Keyness	P
1	TODAY	22	1.62	83	0.18	53.03	0.0000000000
2	TALK	19	1.40	89	0.20	39.40	0.0000000000
3	GOING	28	2.06	224	0.49	35.85	0.0000000001
4	ABOUT	30	2.21	314	0.69	27.43	0.0000001600

8.3.3 Lexico-grammatical items observed in the *Announce Topic sub-function*

The lexico-grammatical items discussed in this section were determined by examining the texts through Wordsmith Tools 5's Concordance lines individually. The groups include those that were seen as most frequent lexico-grammatical items occurring and in some cases, semantic categories. This is as some clauses contained no verbs which is indicated by 'Just topic'. The 10 groups of lexico-grammatical items were identified for the *Announce Topic sub-function* as can be seen Table 59.

Table 59 Summary of lexico-grammatical items found in Announce Topic sub-function according to disciplinary domains

Lexico-grammatical item	AH	%	SS	%	PS	%	LS	%	Total	%
Just topic	2	14.29	0	0.00	3	20.00	7	25.93	12	17.12
i/we + present progressive	2	14.29	0	0.00	1	6.67	4	14.81	7	10.00
Will	1	7.14	2	14.29	0	0.00	1	3.70	4	5.71
would	1	7.14	1	7.14	1	6.67	0	0.00	3	4.29
want	4	28.57	0	0.00	3	20.00	1	14.81	8	11.43
(be) going (to)	1	14.29	10	7.14	5	33.33	11	40.74	27	38.57
could	1	14.29	0	0.00	0	0.00	0	0.00	1	1.43
thought	1	14.29	0	0.00	0	0.00	0	0.00	1	1.43
think	0	0.00	1	7.14	1	6.67	1	3.70	3	4.29
Said	1	14.29	0	0.00	1	6.67	2	7.40	4	5.71
Total	14	100.00	14	100.00	15	100.00	27	100.00	70	100.00

1) '(Be) going(to)

The strongest lexico-grammatical item emerging from all disciplines is the high use of '*i/we + be going to*' totalling to 38.57%. As '*(be) going (to)'* is used to express future plans, this suggests that for this sub-function, lecturers are telling students their planned actions for the lecture to come. This is also observed by Carter and McCarthy (2006) who note that '*be going to'* is often used for forward reference in spoken academic style but not in the written academic style.

Example 8.9 '(be) going (to)' in Announce Topic sub-function

N	Text	File
1	okay er so *i'm going to* be lecturing on Orlando Orlando A Biography	(AT)AHLCT013.txt
2	Transplantation and that's very much what *i'm going to be* talking about er rather than the	(AT)LSLCT011.txt
3	and today *we're going to be* looking at confidence intervals	(AT)LSLCT016.txt
4	okay now i'm to-, today er *i'm going to be* talking about artificial life	(AT)PSLCT035.txt
5	right so what i'm going to be talking about is er new words	(AT)SSLCT038.txt

The frequent use of *(be) going (to)* with the verb '*talk*' in MICASE lectures was also observed in the study of Crawford Camiciottoli (2004). This observation was explained due to the more on-going nature of the MICASE lectures whereby the lectures contributed to a progressive learning experience developed over a series of class meetings. In the examples in 8.9, other verbs following *(be) going (to)* were observed, for example *lecturing* and *looking* which realise the communicative function of the *Announce Topic sub-function.*

2) Just topic

'Just topic' has no specific lexico-grammatical items or associated lexis as the lecturer just mentions the lecture topic. This category has a number of different meanings whereby it can mean a noun phrase (topic) , noun phrase (topic) + *to be* and phrases like '*today's topic is'*. This totals to 17.12% in the data, occurring in all but Social Science disciplines.

Example 8.10 Just Topic in Announce Topic sub-function

N	Text	File
1.	the Annales the early years	(AT)AHLCT028
2.	today's topic is the law relating to prostitution	(AT)SSLCT015
3.	er okay decision making procedures	(AT)SSLCT025
4.	nm0857: reciprocal frame structures yeah	(AT)PSLCT023
5.	so the subject of today's talk is kidney stones	(AT)LSLCT028
6.	er acute renal failure	(AT)LSLCT033

Handford (2010) notes that in business meetings with familiar participants, there is no preliminary stages or introductions. In relation to announcing lecture topics, it can be assumed if the lecturer sees students regularly or continuously in a scheduled weekly routine, then it is possible that the participants get straight to agenda of the day.

3) Want

Of the eight examples of '*Want'* (11.43%), six are found in the pattern '*I want to*' . '*Want*' can be considered to be a strong verb in its own sense, suggesting that the lecturer is very direct about his /her intentions/wish/desire of talking about in the lecture. Concordance lines extracted shows that '*I want to'* is often used with *show now, concentrate, continue, think,*

do is. There was only one example of '*we want to'*(1.49%) in the corpus from Arts and Humanities.

Unlike the other verbs listed for this sub-function which refer to the future, 'want' refers to the present time of the lecture. Interestingly, lexis referring to the present '*today* and *now*' also accompany the verb '*want*'.

Example 8.11 Want in Announce Topic sub-function

N	Text	File
1.	so what i want to concentrate on is Cardiac Arrest mostly	(AT)LSLCT014.txt
2.	what i want to do is actually to look at the literary record *today*	(AT)AHLCT005b.txt
3.	and what i want to show *now* are two properties of this elasticity	(AT)PSLCT016.txt

As the lecture is an academic discourse, it is interesting that Biber et al. (2002b) note that the combination of *want + to-clause* is extremely common in conversation, where speakers often express their own desires or desires of others.

4) I/we + present continuous

'I/we + present continuous', totalling 10% of the lexico-grammatical items in realising the *Announce Topic sub-function.* The verbs found in the data are '*am talking about*', '*are turning to*' 'are *dealing with*' and '*are talking about*'.

It is interesting that both '(*be) going (to)'* and present progressive are which are both used to talk about future are found in the *Announce Topic sub-function.* Carter and McCarthy (2006, p.630) contrast the use of '(*be) going (to)'* and present progressive are used to talk about future plan whereby with *(be) going (to)* 'indicates a decision has been made and that the event will take place soon'. With the present progressive, it 'usually indicates that a decision has been made and that arrangements are probably in place or have been made'. It can be assumed that in any lecture, a lecturer would have a plan of what he or she is going to talk about and has made necessary topics, slides, references or hand outs to share with students in the lecture.

Example 8.12 I*/we* + present continuous in *Announce Topic sub-function*

N		File
1	okay you probably remember that *we are dealing* with compensation now	(AT)SSLCT13.txt
2	er today *we're talking* about the fact that mathematics could be entirely based on set theory	(AT)PSLCT25.txt
3	so today *we'll just be talking* about hypothesis tests	(AT)LSLCT15.txt

5) Will

In the data, *will* is found in all disciplines except Physical Science discipline. Although *will* has different uses, the use of *will* that can be observed with regards to the use of *Announce Topic sub-function* relates to Carter and McCarthy (2006)p.631) that *will* is used to state about certainties in the future. The assumption that the lecturer is talking about something that

is ‘certain’ can be attributed to the reference towards the ‘here and now’ with the use of the words ‘*now*’ and ‘*today*’ as seen in Example 8.13.

Example 8.13 Will in the Announce Topic sub-function

N		File
1	er and so what i <u>*will*</u> do *now* is i will try to describe er or give an idea as to how one could describe as indeed how sociology has described er over a a couple of decades within the framework of industrial society theory has described the societies of the nineteen-fifties nineteen-sixties	(AT)SSLCT030.txt
2	*today* i <u>*will*</u> talk about cos-, post-colonial approaches semiotics and finish with the psychoanalytic approach it's obvious let me start with the post-colonial account	(AT)AHLCT031.txt
3	*now* what i <u>*will*</u> do now is er just say a few things about why i write about slavery	(AT)AHLCT001.txt

6) *Could / Thought / Said/ Would* are verbs as used in the past forms

Also found are use of verbs in the past forms: *could/thought/said/would. Could* and *would* are seen to perform as modal verbs (Example 8.14 and 8.15), to express possibility and can sometimes be seen as a politeness strategy (introduced in section 5.5.1) to soften the imposition of the lecture topic on the students. The use of *thought* before announcing the lecture topic also can be seen as a politeness strategy to soften the imposition of the lecture topic (Example 8.16). While *Said* is seen to refer to something mentioned previously by the lecturer or another lecturer before introducing the lecture topic (Example 8.17).

Example 8.14 Could in Announce Topic sub-function

Text	File
we're talking about the fact that mathematics *could* be entirely based on set theory	(AT)PSLCT025b.txt
what i *could* do first of all while this is being set up is just er show you something that i promised i would show you last time before we get going	(AT)AHLCT005.txt

Example 8.15 Would in Announce Topic sub-function

	File
okay i think it *would* probably be a good idea just to explain	(AT)SSLCT040.txt
and i didn't know how interesting my research *would* be to people	(AT)LSLCT025.txt
just er show you something that i promised i *would* show you last time before we get going	(AT)AHLCT005.txt

Example 8.16 Thought in Announce Topic sub-function

Text	File
er i *thought* i would show this week some ways in which that had been put into use as a means of research by students her	(AT)SSLCT039.txt
and that is why i *thought* what i should try to talk to you about today is this phenomenon of imperialism	(AT)AHLCT019.txt

Example 8.17 Said in Announce Topic sub-function

Text	File
nm0857: right well as er namex has *said* i'm going to introduce some of the basic principles er of tensile structures	(AH)PSLCT023c .txt
okay so if i'm not going to talk about what i *said* i'm going to talk about what am i going to talk about er i'm going to talk about nephrotic syndrome er chronic glomerulonephritis and glomerular disease in general	(AT)LSLCT034b .txt
er right now we *said* today that we'd talk about Kant	(AT)AHLCT038. txt

7) Present time

As Thompson (2003) describes in her research on the lecture introduction framework, the *Announce Topic sub-function* is characterised by the reference to the 'here and now'. This is also observed in the Lecture Introduction Corpus with a total of 41 count of the words *today, now, this session* as seen in Table 60. It is observed that all disciplines use the reference towards the present time with *'today'* the most frequently used, followed by *'now'* and the other variants '*this session', 'this week'*.

Table 60 today, now, this session in the Announce Topic sub-function.

N	Lexis	AH		SS		PS		LS		Total	
		N	%	N	%	N	%	N	%	N	%
1	Today	9	60.00	4	50.00	6	50.00	5	83.33	24	100.00
2	Now	4	26.67	4	50.00	6	50.00	0	0	14	100.00
3	This (session /lecture/ week)	2	13.33	0	0	0	0	1	16.67	3	100.00
	Total	15	100.0 0	8	100.0 0	12	100.0 0	6	100.0 0	41	100.00

To summarise, all disciplines demonstrate a wide use of grammatical features used to express *Announce Topic sub-function*. A total of seven lexico-grammatical items were identified as being frequent and where possible, grouped according to semantic meanings: *(be) going (to),* 'Just topic', *want, i/we + present continuous, will, could/thought/said* and present time. Physical Science and Arts and Humanities do not show any marked use of any particular lexico-grammatical item but instead show a spread of use of different grammatical features. However, there appears a high use of 'Just Topic' and *(be) going (to* for the Life Science discipline. Also that Social Science discipline shows a high use of *(be) going (to).*

The next section discusses the corpus analysis of *Indicate Scope sub-function*.

8.4 Indicate Scope sub-function

The same format of corpus analysis follows through this section where the corpus analysis of the *Indicate Scope sub-function* begins with a discussion of the distribution of the sub-function in the Lecture Introduction Corpus according to the disciplinary domains. This is followed by the keyword analysis of the sub-function and lastly is a discussion of frequent lexico-grammatical items observed in the sub-function.

8.4.1 Distribution of *Indicate Scope sub-function* in the Lecture Introduction Corpus

Table 61 *Indicate Scope sub- function* uses found in the BASE Lecture Introduction Corpus according to disciplines

Sub-Function	LS	% in LS	AH	% in AH	SS	% in SS	PS	% in PS	Total
IS	30	16.76	19	14.29	16	13.01	6	7.23	71

Through the *Indicate Scope sub-function*, the lecturer gives information about the relative importance for each component of the lecture in the context of the whole and prepares the listener for the depth of coverage devoted to each component (Thompson, 1994). As seen in Table 57, a total of 71 sub-functions were identified with the highest use by the Arts and Humanities discipline of 16.79% of its total use of sub-functions in the discipline. In contrast, there was a very small use by Physical Science discipline amounting to 8.14%.

In the Life Science discipline, six lecturers are seen to repeat the use of this sub-function and sandwich them between other sub-functions used. This can be related to the communicative purpose of explaining details of lecture components, where the repeated use is a result of giving more and different details of the lecture topic as seen in Example 8.18.

Example 8.18 Example of *Indicate Scope sub-function* used twice in same lecture (*IS)LSLCT014*

(IS)LSLCT014a and we're going to look at the national and local policy context (IS)LSLACT014b so the key question then is which policies and strategies are being employed to tackle health inequalities and how effective are they likely to be

Example 8.19 Example of *Indicate Scope sub-function* used twice in same lecture *(IS)LSLCT036*

(IS)LSLCT036a i shall pick up where i left off yesterday (IS)LSLCT036b what i'm going to talk about briefly now is rhinoviruses er er er er a small R-N-A virus

In Example 8.19, the lecturer indicates first that the lecture will be a continuation of the previous lecture. Later on in the lecture introduction the lecturer uses this sub-function to introduce the actual topic of the scope to cover.

8.4.2 Keyword analysis of the *Indicate Scope sub-function*

The results of keyword analysis conducted on the all of the 68 *Indicate Scope sub-functions* compared to the Lecture Introduction corpus can be seen in Table 62. Most of the items apart from item 4 and 6 are related to specific lectures, and therefore will have to be disregarded. However, the words *briefly* and *about* do say a little about the sub-function where the former is an adverb used to describe how an item in the lecture is talked about. The latter, upon further examination of concordance lines of the sub-function, is mostly used after the verbs *talk/think* to expand upon scope of the lecture.

Table 62 Keyword analysis results of the *Indicate Scope sub-function*.

N	Key word		Freq.	%	RC.	Freq.	RC. %	Keyness	P
1	BISCUITS	5	0.15	14		37.13		0.0000000000	
2	MULTIPLEX	4	0.12	7		32.78		0.0000000074	
3	ABRAHAM	4	0.12	8		31.93		0.0000000131	
4	BRIEFLY	6	0.18	99		25.29		0.0000004896	
5	SIMPLEX	3	0.09	5		24.81		0.0000006290	
6	ABOUT	39	1.15	5,684	0.46	24.44		0.0000007647	
7	CHARITY	3	0.09	6		23.95		0.0000009881	

8.4.3 Lexico-grammatical items observed in *Indicate Scope sub-function*

A total of 11 groups of lexico-grammatical items were identified as typifying this sub-function as can be seen Table 63. As with earlier analysis, this is done by analysing the texts through concordance and examining the items that appear frequent. In discussing the use, where possible, lexico-grammatical items that share semantic meaning will be grouped together.

Table 63 Summary of grammatical structures and lexis found in *Indicate Scope sub-function* according to disciplinary domains

	AH	%	SS	%	PS	%	LS	%	Total	%
Want	7	50.00	0	0	0	0	7	50.00	14	13.46
Will	5	23.81	3	14.29	2	9.52	11	52.38	21	20.19
Think	7	53.85	3	23.08	0	0	3	23.08	13	12.5
Can	1	6.67	5	33.33	3	20	6	40	15	14.42
Briefly	0	0	0	0	1	16.67	5	83.33	6	5.77
One	1	8.33	2	16.67	4	33.33	5	41.67	12	11.54
First	1	12.5	2	25	2	25	3	37.5	8	7.69
A/little bit	1	20	1	20	0	0	3	60	5	4.81
Little	1	20	1	20	1	20	2	40	5	4.81
Moment	0	0	0	0	0	0	2	100.00	2	1.92

Depth	1	33.33	0	0	1	33.33	1	33.33	3	2.88
Total	25	100.00	17	100.00	14	100.00	48	100.00	104	100.00

1) Verbs : want, will, think and can

Overall a variety of verbs are used in this sub-function but the ones that are used most as seen through examining concordance lines are *want, will, think* and *can.* In the *Indicate Scope sub-function, Will* (20.19%) and *want* (13.46%) are verbs which can be used to relate to the immediate future. As seen in Example 8.20, the lecturer uses *'want'* to refer to the immediate future of the lecture following the introduction. What follows '*will'* is a course aim or objective as seen in Example 8.20.

Example 8.20 Example of 'want in Indicate Scope sub-function

(IS)LSLCT009: but i *want* to talk just for a moment about ways of thinking

Example 8.21 Example of 'will in Indicate Scope sub-function

(IS)PSLCT026: and now i *will* briefly remind you what we were doing last week first well and the week before that

'Think' (12.5%) can be used in the lecture introduction to express belief, to refer to the act of reflecting in the mind, but is also used, especially in speech to reduce the force of a statement(Carter and McCarthy, 2006). As seen in Example 8.22, item (a) demonstrates '*think'* as a verb to reduce the force of the long list of items the lecturer wishes to go through

in the lecture. Item (b) demonstrates *'think'* as the act of reflecting in the mind, and directed to students to help direct the topics of what the lecturer should cover in the lecture.

Example 8.22 Example of 'think' in Indicate Scope sub-function

a)(IS)LSLCT029b: we're going to be doing three lectures now which are about group orientated phenomena and we'll look at things that go on within groups we'll look at the concept of groups see what we shall do we'll try and get through some of these things here although i *think* not all of them but these er more about things that go on within small groups the decision making the performance the impact of being around small numbers of people this week b)(IS)LSLCT026: has anybody got any sort of commissioning or purchasing issues that they would like to have as a theme to to the session anybody they can *think* of that's going on in their organization that they *think* we've got a particular problem of that we can base the s-, the the lecture round mm

Also is the modal verb '*can'* (14.42%) which can refer to ability as seen in Example 8.23. In lecture introductions, it can be expected that the lecturer will want to talk about ability as an aim or objective of the lecture.

Example 8.23 Example of 'can' in Indicate Scope sub-function

(IS)PSLCT006: and looking looking at them in some depth as illustrating er the sorts of things that er you *can* do with photochemistry.

The following semantic groups of lexical items indicating peripheral or centrality/ depth/breadth were identified by examining concordance lines.

2) Numbers: one, first

A lecturer might wish to organise lectures or describe specific content of the lecture by using numbers in the lecture introduction. *'One'* refers to a single unit of entity being discussed – lecture, part, day, phase. An examination of the concordance lines sees that the word 'one' is used in phrases like '*one of the / x things', 'lecture one', 'one mistake'* , *'phase one'* and reference to the self as *'one'.*

While '*first'* refers to an item to be discussed, week or question before all other in time or order of the lecture. A concordance search reveals phrases as '*first part*', '*first of all'*, '*first things', 'first week', 'first question*' and *'first one'*.

3) Short quantity: Briefly, a bit, little, a moment

In this sub-function, lecturers are observed to use lexis synonymous to short quantities as *briefly, a bit, little* and *a moment* presumably to minimise threat to the face of the students listening to the lecture. It can be assumed that by making items in the lecture seem small, appearing easy, this would hopefully put students at ease and comfortable to listen to the lecture.

An examination of concordance lines of briefly in the Indicate Scope sub-function sees it used in an adverbial position, for example 'talk briefly', 'I will briefly remind', 'very briefly mention', 'I'm going to talk briefly about' and 'hopefully reasonably briefly'.

'A bit' was observed to precede an important sounding topic. For example,' bring in a bit of pathology', 'I'm going to talk to you a bit about glomerular disease' and 'that's a bit of multiplex thinking'.

'Little' is also observed in an adjective position in preceding a specific scope which seen in the examples 'explore a little bit detail in the difficulties with obstetrics', 'a little bit about the life of Max Weber', and 'little area of renal disease'. It also is used as an adjective ' a little different from the previous' and ' we learn very little about the specific historical background'.

Also is '*a moment'* which is used before the scope topic, for example, '*I want to talk just for a moment about ways of thinking about Chip*'. The lecturer and students all know that the talk on that particular topic will take more than '*a moment'*. The use can be seen to minimise what be considered as a laborious long lecture topic as small and manageable.

4) Thoroughness: Depth, Detail

In contrast to talking about small quantities of things, the data suggests that lecturers also use lexis associated to thoroughness by using the word '*depth'* (Example 8.24) and the word '*detail* (Example 8.25). The quantity is however very much smaller, four use '*depth'* and one uses '*detail'*. In Example 8.24, '*depth'* is used with '*much more'* and describes '*an in-depth presentation'* and '*looking at them in some depth'*. The one example of the use of the word *detail* is modified with '*a little bit'* to downplay the intensity of it. This supports the non-threatening atmosphere lecturers try to create in a lecture.

Example 8.24 Concordance lines of *depth* in *Indicate Scope sub-function*

N	Concordance	Word #	File
1	you really will encounter in much more depth again throughout this course	456	Sahlct0030b
2	a number of topics rather than an in-, in-depth	188	ISlslct024.txt
3	presentations we're not doing er an in- depth presentation on a particular	58	ISlslct024.txt
4	and looking looking at them in some depth as illustrating er the sorts of	7	ISpslct006.txt

Example 8.25 Concordance lines of *detail* in *Indicate Scope sub-function*

N	Concordance	File
1	things we can do is explore a little bit detail in in the difficulties with ob-,	ISsslct026.txt

To summarise, the lexico-grammatical items which characterise *Indicate Scope sub-function* have been discussed in four separate categories. The most frequent verbs observed are *want, will, think* and *can.* The first two verbs have future reference while the use of the words *think* and *can* depend on the context used. Lexis, fall into three distinctive semantics groups of numbers, short quantity and thoroughness which all work together to create an atmosphere which is less threatening to the students, being novices of the academic discourse community.

8.5 Outline Scope sub-function

The corpus analysis of the last sub-function of the *Set Up Lecture Framework function,* the *Outline Scope sub-function* starts with a discussion of the distribution of the sub-function in the Lecture Introduction Corpus according to the disciplinary domains. This is followed by the keyword analysis of the the sub-function and discussion of frequent lexico-grammatical items observed in the sub-function.

8.5.1 Distribution of the *Outline Scope sub-function* in BASE corpus

In this sub-function, the lecturer lays out the sequence of topics or areas to be covered in the lecture. There are a total of 69 Outline Scope sub-function in the corpus and used most in joint position by the disciplinary domains of Social Science and Life Science. Of the three

sub-functions of *Set Up Lecture function*, this is the least used sub-function, only by only two fewer than *Indicate Scope sub-function*.

Table 64 *Outline Scope sub- function* uses found in the BASE Lecture Introduction Corpus according to disciplines

Sub-Function	LS	% in LS	AH	% in AH	SS	% in SS	PS	% in PS	Total
OS	21	11.73	17	12.78	21	17.07	10	12.05	69

8.5.2 Keyword analysis of *Outline Scope sub-function*

The results of the keyword analysis conducted on the all of the 68 Outline Scope sub-functions compared to the Lecture Introduction corpus can be seen in Table 65. Words that are not subjects of lectures that we can extract to describe this sub-function can be seen highlighted *'lecture', 'then', 'we're', 'start', 'going',' first', 'we'll'.* Of these, the reference to the lecture itself is top of the list. Also lexis suggesting movement *then, start, going, first*. Note the use of *we're* and *we'll* which points to the lecturer referring and including to students and lecturer in talking about the plans for the lecture. Of the three *Set Up Lecture sub-functions*, this is the only one which had a pronoun as a keyword.

Table 65 Keyword analysis results for *Outline Scope sub-function*.

N	Key word		Freq.	%	RC. Freq.	RC. %	Keyness	P
1	UNIONS	17	0.32	46			112.58	0.0000000000
2	LABOUR	24	0.46	285	0.02		95.82	0.0000000000
3	BARGAINING	10	0.19	34			62.32	0.0000000000

4	LECTURE	21	0.40	459	0.04	60.76	0.0000000000
5	THEN	55	1.05	3,661	0.30	59.40	0.0000000000
6	WE'RE	37	0.70	1,945	0.16	52.82	0.0000000000
7	MARKETS	13	0.25	174	0.01	49.05	0.0000000000
8	WAGE	9	0.17	66		43.80	0.0000000000
9	CONTEXT	13	0.25	248	0.02	40.74	0.0000000000
10	WORKFORCE	6	0.11	16		39.87	0.0000000000
11	START	19	0.36	673	0.05	39.14	0.0000000000
12	GOING	48	0.91	3,959	0.32	37.84	0.0000000000
13	THEME	7	0.13	60		32.08	0.0000000119
14	FIRST	26	0.49	1,570	0.13	31.66	0.0000000154
15	INEQUALITIES	7	0.13	83		27.95	0.0000001219
16	WE'LL	16	0.30	748	0.06	25.72	0.0000003908
17	STRUCTURES	8	0.15	148	0.01	25.51	0.000000438

8.5.3 Lexico-grammatical items observed in *Outline Scope sub-function*

A total of 14 lexico-grammatical items were identified as can be seen Table 66. The items were seen as most frequent lexico-grammatical items occurring. The discussion which follows

groups the items where possible according to semantic categories. The words underlined in Table 66 are all keywords.

Table 66 Summary of lexico-grammatical items found in *Indicate Scope sub-function* according to disciplines

	AH	%	SS	%	PS	%	LS	%	Total	%
Going	8	16.67	9	18.75	14	29.17	17	35.42	48	15.89
Will	9	26.47	3	8.82	9	26.47	13	38.24	34	11.25
We'll	3	18.75	2	12.5	7	43.75	4	25	16	5.30
Want	1	6.25	1	6.25	8	50	6	37.5	16	5.30
Start	6	31.58	6	31.58	0	0	7	36.84	19	6.29
Begin	4	66.67	0	0	1	16.67	1	16.67	6	1.99
Move on	0	0.00	3	42.86	2	28.57	2	28.57	7	2.32
First	8	30.77	4	15.38	7	26.92	7	26.92	26	8.61
One	7	33.33	1	4.76	10	47.62	3	14.29	21	6.95
Second	2	25	0	0.00	5	62.5	1	12.5	8	2.65
Third	2	50.00	0	0.00	2	50.00	0	0.00	4	1.32
Now	10	43.48	6	26.09	7	30.43	0	0.00	23	7.62
Lecture	3	14.29	5	23.81	10	47.62	3	14.29	21	6.95

Then	8	15.09	14	26.42	13	24.53	18	33.96	53	17.55
Total	71	100.00	54	100.00	95	100.00	82	100.00	302	100.00

The verbs identified fall into two distinct semantic groups, those with future reference and those related to movement.

1) Verbs with future reference : *going, will, want* and *we'll.*

'G*oing'*, '*will', 'want'* and '*we'll* suggest future reference. These verbs are very popularly used across all disciplinary domains in the corpus with a combined total of 37.74% of structures and lexis in the sub-function.

2) Verbs related to movement: start, begin and move on.

'*Start', 'begin',* and '*move on'* suggest movement in the lecture. These can be considered clear signposts and occur in 10.6% the structures and lexis found. The other lexico-grammatical items identified fall into two distinct semantic groups: Numbers and time.

3) Numbers: first, one, second and third.

'First', 'One', 'Second' and *'Third'* all to do with numbers and the organisation of topics according to the numbers. This amounts to 19.53% of structures and lexis found.

4) Time: *Now* and *then.*

This sub-function uses temporal adverbs which refer to time with '*now'* and '*then'*, all related to organising of lecture topics to be discussed.

To summarise, the lexico-grammatical items can be seen as divided into four semantic groups which are 1) verbs which refer to future, 2) verbs related to movement, 3) numbers and 4) time. It is interesting to note that although Physical Science discipline has the least use of this sub-function, there is a higher use of lexis related to numbers used by this discipline. Also a very high use of the word '*now'* by Arts and Humanities (10) and '*then'* by Life Science (18).

8.6 Chapter discussion and summary

This chapter on the corpus analysis set out to complement and provide a more in depth description of the *Set Up Lecture Framework function* as to unearthing lexico-grammatical items and keywords using Wordsmith Tools 5, to complement the earlier genre analysis.

For the *Set Up Lecture Framework function*, the total use of personal pronoun referents of *I* amounting to 232 referents is slightly more than *we* totalling to 197 referents. In terms of use of pronouns by lecturers, *I* and *we* are used flexibly according to the different pragmatic meanings intended in reflecting the speakers' attitude and intention. For the *Set Up Lecture Framework function*, although *I* is observed to mostly refer to the lecturer, it can depending on the context, refer to lecturer and students or people in general. *You*, although referring to mostly students, is seen to refer most to anyone and anyone in the field of Physical Science discipline. *We*, on the other hand is observed to have a more referents than *I*, where it can either refer to the lecturer, the students, the lecturer and students, general people or people in the field. Life Science and Arts and Humanities show marked use of *we* to refer to the lecturer. However, the use in Life Science is due to the nature of the discipline of having

many lecturers in a session, usually working professionals. For Arts and Humanities, it is the more formal use of *we* to refer to the self.

The *Announce Topic sub-function,* whose communicative function is for the lecturer to tell students the topic of the lecture, produced keyword analysis results which typify this sub-function perfectly with the 4 words *today, talk, going, about*. The most frequent lexico-grammatical item emerging from all disciplinary domains is the high use of '*i/we + (be) going (to)'* but collectively there are a variety of different structures used to express the *Announce Topic sub-function*. Only Life Sciences and Social Science show a marked use of '*I/we + present continuous'.* Physical Science and Arts and Humanities do not show any marked use and show a spread of different grammatical structure.

The *Indicate Scope sub-function* is where the lecturer gives information about the relative importance for each component of the lecture in the context of the whole and prepares the listener for the depth of coverage devoted to each component. This sub-function produced keyword analysis results with only two words which can be considered generic for all disciplinary domains: *briefly* and *about*. The rest of the words were in relation to specific lectures. Despite the few, these two words do summarise this sub-function where the one emphasises the lecturers preference of describing the scope as '*brief*', so as to not intimidate students, and 'about' which precedes what lecturers tell students about the scope of the lecture. The *Indicate Scope sub-function* has been observed to be used popularly by the Life Science discipline with 42.66% of the total. This contrasted with Physical Science amounting to 8.82%. In the Life Science discipline, six lecturers are seen to repeat the use of this sub-function and sandwich them between other sub-functions used. This can be related to the communicative purpose of explaining details of lecture components, where the repeated use is as a result of giving more and different details of the lecture. While the verbs which

characterise this sub-function vary in their semantic meanings of future reference, thought and ability, the lexis fall into 3 distinctive semantics groups of numbers, short quantity and thoroughness. As discussed previously, these lexis all work together to create an atmosphere which is less threatening to the students, being novices of the academic discourse community and having to listen to a lengthy lecture of topics unknown to them.

The *Outline Scope sub-function* is when the lecturer lays out the sequence of topics or areas to be covered in the lecture. It is used most in joint position by the disciplinary domains of Social Science and Life Science. Although it is least frequently used sub-function, it has only by two less than the *Indicate Scope sub-function*. Furthermore, this sub-function has the most keyword analysis results with an impressive 7 key words: *lecture, then, we're, start, going, first, we'll.* Reference to the lecture itself is the most used. Following that is lexico-grammatical items suggesting movement: *then, start, going, first*. This is the only sub-function which had a pronoun in its keyword list with *we're* and *we'll*. A closer look at the lexico-grammatical items of this sub-function sees it to fall neatly into four semantic groups with verbs that refer to future, verbs that refer to movement, to numbers or time. It was noted that although for the Physical Science discipline, there is a higher use of lexis related to numbers. Also a comparatively higher use of the word *now* by Arts and Humanities (10) and *then* by Life Science (18).

The discussion of the corpus analysis of the *Set Up Lecture Framework function* in this chapter has hoped to provide a richer description of the Lecture Introduction genre and find disciplinary differences of use. The chapter which follows is the summary and concluding remarks of this study.

CHAPTER 9: DISCUSSION OF GENRE ANALYSIS AND CORPUS ANALYSIS RESULTS

9.1 Introduction

The discussion of the thesis starts by revisiting the research questions posed in Chapter 1 Introduction. This is followed by pedagogical implications of the thesis research.

9.1.2 Question 1: Are the moves found in the BASE lecture introductions similar to those found in Thompson's (1994) study?

This study on the language used by lecturers in lecture introductions resulted in a revised version of Thompson's (1994) Lecture Introduction Framework which found the two main functions and its six sub-functions identified by Thompson, but also identified and acknowledges another main function and additional sub-functions highlighted in bold in Table 67 (introduced in Chapter 5).

Table 67 Lecture Introduction Framework

Lecture content orientation		**Listener orientation**
Set Up Lecture Framework function (S U L)	Putting Topic in Context function (P T I C)	Listener Orientation (L O)
Announce Topic	Show Importance	Greeting
Indicate Scope	Relate NEW to GIVEN	Announcement
Outline Scope	Refer to Earlier Lectures	Introduce Oneself
	Recap Earlier Lectures	Refer to Handout
	Refer to Future Lectures	Check Comprehension
		Check Comprehension Feedback
		Refer to Visuals

From the analysis of the Lecture Introduction Corpus, a lecturer can impart three main functions which are the Set Up Lecture Framework function, Putting the Topic in Context function and Listener Orientation function. The Set Up the Lecture Framework function sets out the particulars of how the lecture topic is to be delivered. Agreeing with the original sub-functions of Thompson (1994) apart from one, this function is realised by 3 sub-functions; the Announce Topic sub-function, Indicate Scope sub-function and Outline Scope sub-function. Thompson's (1994) study also identified a 'Present Aims sub-function' which wasn't identified easily and found in the corpus. Reflecting on my teaching experience in post compulsory further education in the UK, the lack of sharing teaching aims and with students, with either the explicit aims and objectives written on the whiteboard or shown in the introductory slide presentation is in contrast with findings in the Lecture Introduction Corpus.

The *Putting Topic in Context function* deals with the topic of the lecture in the wider context of the world. Thompson's (1994) study identified three of the five sub-functions which are the *Show Importance sub-function*, *Relate New to Given sub-function* and *Refer to Earlier Lecture sub-function.* I have added *Recap Earlier sub-function* which is a longer version of *Refer to Earlier Lecture sub-function* as the data showed difference of use amongst lecturers. Also added was *Refer to Future Lecture sub-function* which sees lecturers situating the lecture topic in the future or arrangements made regarding a future lecture.

The third main function added to the framework is the *Listener Orientation function* which was regarded by Thompson (1994) as occurring in all parts of the lecture and therefore omitted from her framework. However, other studies on other spoken academic genres by Dubois (1985) and lecture introductions by Lee (2009) acknowledge that lecturers orientate the audience to listen to the lecture by talking about other matters than the lecture topic in the introductory section of these spoken academic genre. From the corpus data, it would be

impossible to ignore language that orientates the listeners towards the lecture as one of its sub-functions, the *Announcement sub-function,* is the fourth most occurring sub-function in the whole corpus. The *Listener Orientation function* is also the second highest occurring main function with 37% of total functions used. The reason why announcements are made in the earlier part of a lecture rather than part way through the middle from my own personal experience of teaching suggests its importance and by communicating something at the beginning at the lecture ensures that the students are all paying attention and will hopefully take note and take appropriate action. Other sub-functions of the *Listener Orientation function* identified are the *Greeting sub-function*, *Introduce Oneself sub-function, Refer to Handout sub-function*, *Check Comprehension sub-function*, *Check Comprehension Feedback sub-function* and *Refer to Visual sub-function*.

9.1.3 Question 2: Do Lecture Introductions exhibit a common rhetorical move structure, nd if they do, what is the prototypical structure. Are the elements in each of the moves obligatory or optional? Do the obligatory move elements in Lecture Introductions appear in a fixed or sequential order?

If the premise to labelling a move as obligatory where it occurs 100% in all texts of the genre then the data from the Lecture Introduction Corpus shows that there are no obligatory moves in the Lecture Introduction genre. Lecture Introductions may contain one, two or all three of the main functions. All lectures contained a lecture introduction and even the shortest lecture contained one function. It can be therefore claimed that it is obligatory that one of the three main functions of the Lecture Introduction framework to occur.

The corpus data suggests that there is no fixed order of moves used for the Lecture Introduction genre. Functions are also seen to be repeated, but it is not a repetition of the same information, rather the lecturer adds more and different information to the one previously mentioned. However, the only preferred sequence of sub-function observed is that the *Check Comprehension Feedback sub-function* always follows *Check Comprehension function*. Verbal feedback is not always given to students, but indicated through body language. Also sometimes further feedback is not needed.

9.1.4 Question 3: Are there any disciplinary differences found in lecture introductions?

The results from the small corpus suggests that the four disciplinary domains of Arts and Humanities, Life Science, Social Science and Physical Science do exhibit the use of different frequent sub-functions which appears to reflect the knowledge and nature of its disciplines.

An examination of most frequently used sub-functions by the Life Sciences discipline sees that it uses three of the *Listener Orientation function's* sub-functions *Greeting sub-function* and *Introduce Oneself sub-function* highly compared to the other disciplines. These two sub-functions can be explained by the nature of this discipline which appoints guest lectures and working professionals from the industry to teach its students. The high use of *Refer to Visual sub-function* concurs with the study by Brown and Bakhtar (1988) who observed that biomedical lecturers' lecturing style was termed as 'eclectic' and amongst the many characteristics refer to visuals such as the blackboard and overhead projector in their lectures, alongside the use diagrams to show relationships and display processes (see

Appendix I). It is interesting that this observation is true of the lecture introduction being the beginning of the lecture, not just throughout the lecture as their study.

The most frequently observed sub-functions used by the Life Sciences discipline are the three *Set Up Lecture Framework function* sub-functions: *Indicate Scope sub-function* with 16.76%, the *Outline Scope* and *Announce Topic sub-function* both with 11.73% each (see section 6.4). Brown and Bakhtar (Ibid.) also observed similarly that 'eclectic style' biomedical lecturers inform the students in advance of the topic and tell students the objectives of the lecture. herefore it can be claimed that Life Science lecturers will provide students with a framework of the lecture topic in introducing their lectures.

The Arts and Humanities discipline on the other hand has been observed to use the *Refer to Handout sub-function* more than other disciplines. The referal to handouts can be seen towards helping students to become familiar with the particulars and arguments of the literature of the canon. This can be viewed as contributing towards the understanding and interpretation of the subject matter, which is a characteristic of the disciplinary nature of 'soft-pure' disciplines by Becher (1994).

The most frequent sub-functions of the Arts and Humanities disciplines are the *Indicate Scope sub-function* with 14.29%, *Outline Scope sub-function* with 12.78% and *Announce Topic sub-function* with 12.03%. This supports the observation of the study of Brown and Bakhtar (1988) (see 2.4.1 and Appendix I) that Arts and Humanities lecturers' as being 'oral lecturers' who are more likely to outline the structure at the beginning of their lectures. Like the Life Science discipline, Arts and Humanities lecturers support students understanding of lectures by setting up the lecture framework in the lecture introduction.

The Social Science discipline uses *Refer to Future Lecture sub-function* more than other disciplines. Further analysis of the use sees it as referring to arrangements, reminders and links made of other lectures in the immediate future of the duration of the course.

Like the Life Science and Arts and Humanities discipline, the three most used sub-functions are from the *Set Up Lecture Framework function*. However, the order of frequency differs where the *Outline Scope sub-function* is used the most with 17.07%, followed by *Announce Topic sub-function* with 13.82%. and *Indicate Scope sub-function* with 13.01%.

Interestingly the Physical Science disciplines sees the high use of *Recap Earlier Lecture sub-function* and *Refer to Earlier Lecture sub-function* in comparison to other disciplines. By building on previous knowledge from earlier lectures, this very much reflects the nature of discipline which has been described as being 'cumulative' (Becher 1994). This is also observed by Brown and Bakhtar's (1988,p.139) where science lecturers, seen as 'visual lecturers', 'are more likely to recapitulate briefly at the beginning of each lecture'.

Disciplinary difference is also seen in the use of pronouns by the different disciplines. The examination of the use of pronouns in the *Set Up Lecture Framework Function* sees that the pronouns '*I'*, '*you'* and '*we'* are seen to have several referents. For example, '*I'* is observed to mostly refer to the lecturer, but depending in the context, can refer to lecturer and students or general people. Interestingly, although '*You'* refers mostly to students, in the Physical Science, it is seen to refer most to general people and anyone in the field. Interestingly, '*We'* has five different referents which is the lecturer, the students, the lecturer and students, general people or people in the field. While the frequent use of '*we'* in Life Science is due to the nature of the discipline of having more than one lecturer in a session, for Arts and Humanities, it is the more formal use of '*we'* to refer to the self.

The corpus analysis of the *Set Up Lecture Framework function* which consists of the three sub-functions *Announce Topic sub-function, Indicate Scope sub-function and Outline Scope sub-function* gives an in-depth lexico-grammatical description of the function and also sees several disciplinary observations. The *Announce Topic sub-function*, which is the most used sub-function in the corpus, of which communicative function is for the lecturer to tell students the topic of the lecture, produced the Keyword analysis results of the 4 words '*today', 'talk', 'going', 'about*' which sums up the sub-function. The strongest pattern emerging from all disciplinary domains is '*i/we + be going to'* alongside a variety of different grammatical structures and lexis. Only Life Sciences and Social Science shows a marked use of '*I/we + present continuous'.*

The second most used sub-function in the corpus is the *Indicate Scope sub-function* where the lecturer gives information about the relative importance for each component of the lecture in the context of the whole and prepares the listener for the depth of coverage devoted to each component. The Keyword analysis results consists of only two words applicable to all disciplines: '*briefly'* and '*about'*. These two words highlight the description of the lecture scope as '*brief*', seen as to not intimidate students knowing that lectures can be hours long, and '*about*' which proceeds what lecturers tell students about the scope of the lecture. The *Indicate Scope sub-function* has been observed to be used popularly by the Life Science discipline with 42.66% of the total, contrasted with Physical Science amounting to 8.82%. Although the figure is high for the Life Science discipline, it is only found in six lecturers as they repeat the use of this sub-function within a lecture. The repeated use is as a result of giving more and different details of the lecture. The verbs which characterise *Indicate Scope sub-function* vary in their semantic groups of future reference, think and ability, while the lexis fall into 3 distinctive semantics groups of numbers, short quantity and thoroughness. The

combination of these grammatical structures and lexis together is seen to create an atmosphere which is less threatening to the students who are novices of the academic discourse community.

The third most frequent used sub-function in the corpus is the *Outline Scope sub-function* where the lecturer lays out the sequence of topics or areas to be covered in the lecture. It is observed to be used most in joint position by the disciplinary domains of Social Science and Life Science. It has seven keywords: *lecture, then, we're, start, going, first, we'll.* In terms of the grammatical structures and lexis used in this sub-function, reference to the lecture itself is used the most, followed by lexis suggesting movement: *then, start, going, first*. This is the only sub-function which had a pronoun in its keyword list with '*we're'* and '*we'll'*. A closer examination of the verbs and lexis of this sub-function sees it to fall neatly into two semantic groups where the verbs can refer to future or movement and with the lexis to numbers or time. It was observed also that the Physical Science uses of lexis related to numbers highest for this sub-function. There is also a very high use of the word '*now'* by Arts and Humanities discipline and '*then'* by Life Science discipline.

9.2 Pedagogical implications of the Lecture Introduction Framework

The pedagogical implications of the Lecture Introduction framework is discussed in the three areas of research spoken academic genres in different disciplines, the teaching of undergraduate students and personal lecturer development.

9.2.1 Pedagogical implications for the research of spoken academic genres in different disciplines

Genre studies use communicative functions to distinguish between genres and thus the Lecture Introduction has been established in this study as the sub-genre of the lecture genre due to its different main communicative function to introduce the lecture. This study extends the previous studies of Lecture Introductions on a larger scale in which it claims to have created a more robust framework than the original Thompson (1994) study. The most frequent move types according to disciplines points further ethnographic investigation of the different disciplines to confirm the results from the corpus and to seek disciplinary explanations from practising lecturers.

9.2.2 Pedagogical implications for teaching undergraduate university students

The importance of understanding lectures is evidenced through the observation that books on study skills at university assign chapters on how students can get out the most out of lectures (Du Boulay, 2011, Cottrell, 2003, Newble and Cannon, 1995). In encouraging active learning in lectures, Du Boulay (2011) explains that a typical lecture structure contains a lecture introduction at the beginning which examples given are: recap on last week's lecture, context of this lecture within the lecture series, summary of main points in this lecture (often three, with some subsidiary points). She also recommends that the parts that students need to concentrate on are " the introduction so that you know what's coming, and then the last part of the lecture, which should crystallise everything – as long as the lecturer doesn't run out of time. If he does, this important review normally comes at the beginning of the next lecture." (

Ibid., p.71). Even Cottrell (2003 ,p.138) claims that "good lectures tell you at the beginning which main topics will be covered and in which order, or write up headings." She furthermore provides a lecture note cover sheet for which students can use while listening to lectures which contain a section entitled 'the opening comments of the lecturer' for students to complete on the lecture introduction. All this points towards helping students to understanding this genre.

This study originated from reflection of my own learning journey in British higher education, the problems I faced starting as an international undergraduate student and later on the other side of the classroom in reflecting my own teaching, of the capacity in which I could help my students starting out university as a tutor. The Lecture Introduction Framework has potential to empower students on what a lecture introduction contains. It is therefore only fitting that a pedagogical implication of this study is to apply and incorporate the functions and sub-functions identified into a lesson. One suggestion would be to simply identify the functions according to the Lecture Introduction Framework and assess if it helps aid comprehension. One way of applying it in classrooms is to assign the functions in the framework to a viewing and listening to a video recording of the lecture. From there students can discuss the lexico-grammatical realisations of the function.

A survey of course books on academic listening sees examples of lectures in course books on academic listening do not accurately reflect actual use, although claiming to use authentic data. In Lynch's (2004) course book on listening to lectures, the only specific focus on lecture introduction that students are given a list of structures that lecturer's use at the start of a lecture which he calls 'signpost markers' (e.g. *I'd like to…, I'm going to…, I want to…, I plan to…, I intend to…)*. The list is however very limited to these five phrases of which can be misleading as the authentic data shows there are various ways a lecturer introduces a lecture,

and that the lecturer does not always refer to him or herself as '*I'* but also '*we'*. An examination of the lecture introductions of eight lectures used in the course book also do not include other sub-functions identified in the *Listener Orientation* function, apart from *Greeting* sub-function. As found in my study, there are seven other sub-functions of the *Listener Orientation* function.

However, one commendable listening course book by Campbell and Smith (2007) is seen to use authentic enough lectures and even dedicates a chapter on 'Introductions to lectures', drawing students' attention to nine different functions and the language of lecture introductions. Students are lead through a task of identifying different functions based on lecturers' statements (extract from transcripts) and as a follow up task apply the different functions to a listening task. The other activities on lecture introductions focus on lecturer word pronunciation, in particular word-stress of words in lectures. However, my only main criticism is that the nine functions introduced are not the only ones contained in a lecture introduction and that the one listening task is not enough to focus on communicative functions. Also listening to lectures should ideally involve watching a video recording to make the experience authentic to students.

As the results of this study also support studies of disciplinary difference and teaching styles, creating awareness of how disciplines typically present lecture introductions the can help students to be aware of the underpinning disciplinary knowledge and nature before or while they study at university. Comparing and contrasting two lectures of different disciplines can help develop an understanding of disciplinary differences. An example of how the Lecture Introduction Framework can be used to teach international students on a pre-sessional English course can be seen in Appendix IX.

9.2.3 Pedagogical implications for personal lecturer development

For their own professional development, lecturers should be careful and conscious of the language and style of their lecture presentation. Arguably the most popular book on lecturing, Bligh's (1998) *What's the Use of Lectures?*, suggests that one effective lecture technique with regards to lecture organisation that helps affect the acquisition of information is that lecturers should "state the organisation of the lecture clearly in the beginning" which can done by explaining how the objectives of the lecture is to be achieved. Another suggestion includes "summarising the lecture content in such a way that it whets the appetite, provide visual illustration, humour and an occasional anecdote" (Ibid., p.76). The first recommendation can be seen as using the *Indicate Scope sub-function* and the rest are other *Listener Orientation function* sub-functions. In their teacher training guide, Reece and Walker (2007) claim that lecturing skills are an essential part of a lecturers' teaching repertoire. To them, it must involve preparation to ensure successful implementation and that a lecture must always have a beginning (introduction), middle (development) and end (conclusion) alongside other strategies to help students consolidate and provide opportunities for assessment. Newble and Cannon (1995) also stress that particular attention should be given to the way lecturers start the lecture and it is essential to plan it beforehand. They recommend lecturers to explain the purpose of the lecture and how it is organised. This can be seen as using the *Present Aims sub-function* and *Outline Scope sub-function* from the Lecture Introduction Framework.

For lecturers, the Lecture Introduction Framework can raise awareness of their own language use to help students understand their lectures. Paradoxically, in attending a university staff development session for international lecturers in developing their lecturing skills, the main concern for the lecturers were how to keep their students (in their late teens) engaged and to pay attention to the lecture instead of what I thought would be their main

concern which is how to make their lectures listener friendly. In a session where the course tutor played two recordings of a lecture introduction and asked the international lecturers to assess which was "better", the majority of the international lecturers graded the young, actively animated lecturer who had what can be considered as 'stage presence', better than the one who stayed in one place and read out loud his lecture introduction. Indeed, the importance of creating interest and being good at explanation is principle number one listed in Ramsden's (1992) 'six key principles of effective teaching in higher education'. While 'generating and maintaining interest' is also one of Morton (2009a)'s three key aspects that makes an outstanding lecture, so is 'student engagement' and 'lecture structure' which can be related to the lecture introduction. In my own personal opinion, although the second lecture seemed to be uninteresting to the average undergraduate student, the language used was clearly structured and was clear to the students of what to expect in the main lecture. While the vibrant active lecturer was motivating to watch, it did not prepare students content-wise for the lecture to come. The issue of which was better is subjective to the individual delivering and listening but it would be good in my personal opinion to create a balance between both which is an interesting lecture introduction which introduces the lecture and prepares the students to listen to the main lecture and yet is motivating enough to engage the students.

CHAPTER 10: CONCLUSION

This chapter summarises the main contributions of this study and draws attention to the limitations of the methods adopted. The latter part closes the thesis with recommendations for future research on the language of Lecture Introductions.

10.1 Summary of contributions of this study

The investigation into the language of lecture introductions contributes to the existing field of knowledge of genre analysis and corpus linguistic analysis of small specialised corpora. Taking the definition of genre from Swales (1990) that sees genres as having distinctive forms resulting from specific communicative purposes, and from Bhatia (2004) that differentiates genres and sub-genres according to the level of genre abstraction, the lecture introduction in this thesis is viewed as a sub-genre of the lecture genre (section 3.2). However, lecture introductions are very much unlike typical written academic genres like the Research Article having distinctive formal features with a clear linear flow of communicative functions which makes it difficult to define. Lecture Introductions also seem ephemeral due to the nature of spoken language which is produced and processed in real time. As it has been argued that understanding the generic structure of a genre helps facilitate comprehension (Paltridge and Starfield, 2012, Hyland, 2003, Johns, 1997, Johns, 2008, Kay and Dudley-Evans, 1998), it is hoped that understanding the generic structural elements of the lecture introduction to be helpful in understanding the lecture for novice students at university.

In conducting the genre analysis, the functions and sub-functions which realise a move type have been identified according to three criteria of the comprehension of meaning conveyed, linguistic signals used and understanding of the environment of the lecture. Being a spoken genre, the importance of viewing the video recording is considered vital in analysing

and deciphering language of this genre. The assumed phonological paragraph in deciding the boundary between the introduction and when the lecture starts (Thompson, 1994) also proved to be unsatisfactory, and therefore a combination of text structuring discourse from the transcripts and visual clues alongside the phonological paragraph from video recordings were used in identifying the genre.

The move analysis of the language used by lecturers in lecture introductions resulted in the identification of three main function and fifteen sub-functions in making the Lecture Introduction Framework where two main functions and its six sub-functions were identified by Thompson's (1994) study, as discussed in Chapter 5. The selection of functions a lecturer uses is seen to achieve the overall main communicative function of introducing the lecture to students. A lecturer may communicate, in no specific order, any of the three main functions through the *Set Up the Lecture Framework function*, *Putting the Topic in Context function* and *Listener Orientation function* in a Lecture Introduction.

The results also conclude that the four disciplinary domains of Arts and Humanities, Life Science, Social Science and Physical Science employed in this study do use different sub-functions frequently which appears to reflect the knowledge and nature of its disciplines through the use of most frequent sub-functions when compared to Becher's (1994) description of disciplinary grouping and knowledge and culture. For example, an examination of most frequently used sub-functions by the Life Science discipline sees that it uses the *Listener Orientation function's* sub-functions *Greeting sub-function* and *Introduce Oneself sub-function* which reflects the employment of guest lectures and working professionals from the industry to teach its students. The high use of *Refer to Visual sub-function* in the Lecture Introduction Corpus compared to the other disciplines was also observed in the study of

Brown and Bakhtar (1988) on lecture styles and disciplines reflecting the nature of this branch of science that involves the scientific study of living organisms and human beings.

The Arts and Humanities discipline on the other hand is observed to use the *Refer to Handout sub-function* more than other disciplines in the Lecture Introduction Corpus. The reference to handouts can be seen towards helping students to become familiar with the literature of the Arts and Humanities canon.

The Social Science discipline is observed to use the *Refer to Future Lecture sub-function* more than other disciplines. A closer examination sees the use to refer to the immediate future lectures.

In contrast, the Physical Science discipline sees the high use of *Recap Earlier Lecture sub-function* and *Refer to Earlier Lecture sub-function* in comparison to other disciplines. By building on previous knowledge from earlier lectures, this reflects the nature of discipline which has been described as being 'cumulative' (Becher, 1994).

A closer examination of the lexico-grammatical features of the *Set Up Lecture Framework Function* also observed some disciplinary differences. In the Physical Science, *you* as a referent which refers mostly to students, is seen to refer most to anyone and anyone in the field. While the frequent use of *we* in Life Science is due to the nature of the discipline of having more than one lecturer in a session. For Arts and Humanities, it is the more formal use of *we* to refer to the self. Other preferences of lexico-grammatical structures by different disciplines within the sub-functions of *Set Up Lecture Framework function* were observed but it may not be possible to draw definitive conclusions due to limitations discussed in the following section.

10.2 Limitations of this study and recommendations for future research

Limitations of this study is discussed with regards to size of the corpus, the division of discipline domains or individual subjects, the English language variety examined and the corpus linguistics analysis.

10.2.1 Size of the corpus

Although the corpus size of 89 lectures and 45,305 running tokens can be considered as small, it has been claimed that small specialised corpus as used in this study is sufficient in that it contains samples of language representative of this spoken academic genre. However, the results from a larger sample of lectures of this study of the language of lecture introductions would possibly give strength in numbers and provide more reliable and conclusive results from a larger sample of lectures. The results of disciplinary differences in lecture introductions would also benefit from larger samples and equal amounts of lectures. By a having a bigger corpus, the keyword analysis of the different disciplines would be possible as it has not been possible with the current study.

10.2.2 Discipline versus subject difference

A recommendation for future studies would be not necessarily to look into disciplinary differences but subject differences as the categorisation of disciplinary domains is too broad for fair comparison and to make generalisations. The four disciplinary categories of Arts and Humanities, Social Science, Physical Science and Life Science used in this study were divided according to the BASE corpus developers and claimed broad enough to make

comparisons with other corpora like MICASE. When the actual lecture subjects are listed, these broad categories only partially fit into Becher and Trowler (1989)'s division of academic disciplines into Hard-Soft and Pure-Applied disciplines. It is recommended for future that a study examines subject differences within a broad discipline that claims to be same.

10.2.3 British versus English speaking university practice

This study was conducted with data taken from the BASE Corpus which is essentially spoken academic British data and therefore the results can be strongly generalised as applying to lecture introductions in universities in the United Kingdom. Future recommendations would be to see whether other lecturers in other parts of the world that use English as medium of instruction construct their lecture introductions similarly or whether regional variation is another factor influencing the way lectures are delivered.

10.2.4 Corpus linguistic analysis of all the functions and sub-functions of the Lecture Introduction Framework

Limitations of time and space in completing this thesis also have restricted the researcher to focus the corpus analysis on one main function of *Set Up Lecture Framework function*. Therefore another recommendation would be to continue analysis of all the remaining functions: the *Putting Topic in Context function* and *Listener Orientation function* and all of the sub-functions that make up the Lecture Introduction Framework.

10.3 Concluding remarks

The investigation of the language of lecture introductions using the complementary approaches of genre analysis and corpus linguistics approach is the first of its kind in analysing this sub-genre of the spoken academic lecture. This thesis demonstrates that although the language used by lecturers in their lecture introductions may seem spontaneous and unplanned compared to written academic genres, the communicative functions can be mapped on to the Lecture Introduction Framework. It is hoped that this study contributes to the existing literature of investigation of generic structure of the spoken academic genres and towards studies of disciplinary difference which gives the expert lecturers food for thought to reflect on in presenting their lectures, and a framework with which to aide comprehension for their novice students.

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Appendix I

Summary of Brown and Bakhtar's (1988, pg.139 – 141) lecturing styles.

Oral lecturers

- This cluster of lecturers rarely uses any means of communicating rather than talk.
- They do not use either blackboards or overhead transparencies to outline main points or provide full notes, nor do they use diagrams to show relationship structures or processes.
- They use technical language sparsely.
- They are less likely than the visual lecturers to write down full lecture notes or scripts, more likely to write down headings, subheadings and brief notes; and they are less likely to rely on one text for preparing lectures.
- They rarely take into their lectures complete statements of complex arguments or proofs. They do not have difficulty in selecting and structuring material, they are fairly confident about the material that they cover in their lectures and usually feel that they achieve their objectives in lectures.
- They are more likely to inform students in advance of the topics of the lectures, to tell the students the objectives of the lectures, to think about a set of objectives for each lecture and to write down their objectives.
- They are more likely to think about objectives than to write them down.
- The oral lecturers are more likely to outline the structure at the beginning, to define new terms or concepts, to stress important points, summarise at appropriate points during the lecture and at the end of the lecture and to link their summary to the next lecture.
- Oral lecturers, quote from texts and articles in their lectures.

In summary, one may characterise an oral lecturer as fairly confident, well-structured and orderly presenter of oral information.

Visual lecturers

- This group are essentially confident, visual information providers.
- They use the blackboard or overhead projector to provide full notes to their students, use diagrams to show relationships and processes and usually give students time to copy down complex diagrams.
- They are more likely to write down full notes when preparing their lectures, least likely to use only headings and brief notes.
- They tend to rely on one text to prepare lectures and take into their lectures full details of complex proofs or arguments; and they keep closely to the content and structure of the lecture roles and use few humorous asides.
- Visual lecturers are confident about the material on which they are lecturing.

They do not have difficulty in selecting or structuring materials, and they feel they achieve the objectives of their lecture.

- They are more likely to think about the objectives of each lecture, to write down the objectives and inform the students of the objectives of each lecture.
- They are are also more likely to recapitulate briefly at the beginning of each lecture, to define new terms or concepts and at appropriate points stress and summarize their lecture.
- Visual lecturers do not summarize the main points at the end of each lecture, but they do summarize each lecture topic and link the summary to the next lecture topic. At first sight, this finding may appear puzzling. However, many prepare lectures which may not necessarily fit into one-hour lecture periods. Hence they summarize and link lecture topics, rather than lectures.
- They are much less concerned to take into account their students' experience and to offer suggestions on how to take notes in their lectures.

One may conclude that visual learners appear, as a group, to be concerned with conveying detailed information for the students to copy and work on subsequently. They do not appear to be concerned with generating understanding or interest during the lecture. They are confident and efficient but, perhaps, somewhat mechanical in their preparation and they are competent information providers.

Exemplary lecturers

- They are confident, well–structured and able presenters who use a wide variety of oral and visual techniques of presentation.
- When preparing lectures, they are the group most likely to write down headings, sub-headings and brief notes rather than whole lectures.
- They do not have difficulty in selecting or structuring materials for their lectures. They think about and write down what the objectives and tell the students the objectives of the lecture. They inform students, in advance, of the topics of their lecture.
- They rarely use the blackboard to provide full notes for their students, but almost all use the blackboard or overhead projector to outline main points. They provide handouts but this is not significantly different.
- They recapitulate briefly at the beginning of the lecture about the previous lecture, and outline the structure of the present lecture.
- They often begin lectures by asking questions which they proceed to answer.
- They keep closely to the structure of their notes. They quote from texts or articles to illustrate their argument, and use diagrams to show relationships between ideas and to show processes and procedures.
- They stress important points, define new terms and summarise during and at the end of their lectures.

- They make links between their lectures and subsequent ones, often ending a lecture by posing questions to students.
- They usually feel that they have achieved the objectives of their lecture.
- They are more likely to offer suggestions to students on how to take notes in their lectures.
- They are the second highest group that would make humorous asides in their lectures, though not statistically significant difference.

In summary, these lecturers are confident, capable lecturers who sue a blend of oral and visual techniques, and who appear to be concerned with generating understanding and thought as well as providing information.

Amorphous lecturers

- These lecturers may be characterised as confident but ill prepared and vague.
- Of all the groups, they are least likely to think out or write down their objectives or tell the students the objectives of each lecture.
- They are least likely to tell the students at the beginning of the term on which topics they will be examined or tell students in advance the topics of the lectures.
- Despite these characteristics, they are as confidenr as the visual, oral and exemplary lecturers that they achieve their objectives, and significantly more confident than the eclectic lecturers.
- They do not report having difficulty in selecting and structuring materials for lectures and feel confident about the materials they cover in their lectures.
- While lecturing, this group of lecturers do recapitulate the previous lecture before beginning tehir elctures but often do not outline the structure of the new lecture.
- They do not stress or summarise main points, define new terms or quote from texts or articles.
- They use few humourous asides and rarely begin lectures with questions, and even more rarely end lectures with a summary.
- They do provide lists of headings for their students,and use the blackboard and overhead projector but not for full notes.
- They use diagrams to show relationships or processes less frequently and fail to give students time to copy complex diagrams. They are least likely to offer suggestions on how to take notes.
- They keep closer to the content and structure of their notes.
- They are the most distinctive cluster of lecturers to emerge from the cluster analysis.
- They are vague about their objectives, neglect the essential strategies of lecturing, yet they are at least as confident as other groups of lecturers.
- They are in favour of training in lecturing but do not consider themselves

require any training. These characteristics would appear to signal a need for staff development.

Eclectic lecturers

- These lecturers use a variety of techniques, including humour, but who lack confidence in their lecturing prowess. Initially, thet were called ‘self-doubters’, but the label does less than justice to their competence and concern for students.
- When preparing for lectures, this group admits to having difficulty in selecting and structuring material.
- They tend to write down headings, sub-headings and brief notes rather than detailed lecture notes and are likely to use more than one text as a source for their lectures.
- They think about the objectives but tend to not write them down.
- They do inform the students in advance of the topic of the lecture, and they tell the students the objectives of each lecture.
- They are very likely to tell students topics they will be examined too.
- They are most likely to digress from the contents of their lecture notes.
- They feel they have not achieved their objectives and feel less confident about the knowledge of their topic.
- They are more likely to take into account students experience and background, and offer students advice on how to take notes in the lecture.
- They use the blackboard and overhead projector in their lectures, and use diagrams to show relationships and display processes.
- They do not recapitulate previous lectures before the beginning of he new lecture, but do outline the topic at the beginning of a new lecture.They are more likely to link and summarise their lectures and stress important points.

Appendix II

Inter-rater reliability test results for Lecture Introduction Framework using Kappa statistics from SPSS software.

An inter-rater reliability analysis using the Kappa statistic was performed to determine consistency among raters. The inter-rater reliability for the raters was found to be Kappa = 0.89 (p <.0.001) which can be claimed as almost perfect agreement between raters.

```
CROSSTABS
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  /CELLS=COUNT
  /COUNT ROUND CELL.
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Crosstabs

Notes

Output Created		20-SEP-2013 11:32:25
Comments		
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.

Syntax		CROSSTABS /TABLES=VAR00001 BY VAR00002 /FORMAT=AVALUE TABLES /STATISTICS=KAPPA /CELLS=COUNT /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01
	Dimensions Requested	2
	Cells Available	131029

[DataSet0]

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
VAR00001 * VAR00002	29	100.0%	0	0.0%	29	100.0%

VAR00001 * VAR00002 Cross tabulation

Count

		VAR00002			Total
		1.00	2.00	3.00	
VAR00001	1.00	12	1	0	13
	2.00	0	9	0	9
	3.00	1	0	6	7
Total		13	10	6	29

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Measure of Agreement	Kappa	.893	.073	6.682	.000
N of Valid Cases		29			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

CROSSTABS

```
  /TABLES=VAR00001 BY VAR00002
  /FORMAT=AVALUE TABLES
  /STATISTICS=KAPPA
  /CELLS=COUNT
  /COUNT ROUND CELL.
```

Crosstabs

Notes

Output Created		20-SEP-2013 11:34:04
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=VAR00001 BY VAR00002 /FORMAT=AVALUE TABLES /STATISTICS=KAPPA /CELLS=COUNT /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Dimensions Requested	2
	Cells Available	131029

[DataSet0]

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
VAR00001 * VAR00002	30	100.0%	0	0.0%	30	100.0%

VAR00001 * VAR00002 Cross tabulation

Count

		VAR00002			Total
		1.00	2.00	3.00	
VAR00001	1.00	13	1	0	14
	2.00	0	9	0	9
	3.00	1	0	6	7
Total		14	10	6	30

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Measure of Agreement	Kappa	.895	.072	6.792	.000
N of Valid Cases		30			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

```
CROSSTABS
  /TABLES=VAR00001 BY VAR00002
  /FORMAT=AVALUE TABLES
  /STATISTICS=KAPPA
  /CELLS=COUNT
  /COUNT ROUND CELL.
```

Crosstabs

Notes

Output Created		20-SEP-2013 11:41:50
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.

Syntax		CROSSTABS /TABLES=VAR00001 BY VAR00002 /FORMAT=AVALUE TABLES /STATISTICS=KAPPA /CELLS=COUNT /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Dimensions Requested	2
	Cells Available	131029

[DataSet0]

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
VAR00001 * VAR00002	30	100.0%	0	0.0%	30	100.0%

VAR00001 * VAR00002 Cross tabulation

Count

		VAR00002			Total
		1.00	2.00	3.00	
VAR00001	1.00	13	1	0	14
	2.00	0	9	0	9
	3.00	1	0	6	7
Total		14	10	6	30

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Measure of Agreement	Kappa	.895	.072	6.792	.000
N of Valid Cases		30			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Appendix III

Lecture Introductions used in this study

BASE lecture data obtained from BASE Public holdings, tokens counted in Wordsmith Tools 5

	Lecture Title	Code	Subject	BASE discipline	Audience	Tokens
1.	A Reading	ahlct001	Centre for Caribbean Studies	Arts and Humanities	PG/staff	297
2.	Agricola	ahlct005	Classics and Ancient History	Arts and Humanities	UG2/3	531
3.	Roman Britain	ahlct006	Classics and Ancient History	Arts and Humanities	UG2/3	717
4.	The aftermath of political nationalism in early 19th century Latin America	ahlct007	Comparative American Studies	Arts and Humanities	UG	798
5.	Essay writing and scholarly practice	ahlct012	English and Comparative Literary Studies	Arts and Humanities	UG	446
6.	Approaches to Virginia Woolf's 'Orlando: a Biography' (1928)	ahlct013	English and Comparative Literary Studies	Arts and Humanities	UG	292
7.	Medical dramas on TV	ahlct014	Film and Television Studies	Arts and Humanities	UG	187
8.	Introduction to new realism	ahlct015	Film and Television Studies	Arts and Humanities	UG	1,131
9.	French film noir: the 1950s French gangster film	ahlct016	Film and Television Studies	Arts and Humanities	UG	324
10.	Imperialism	ahlct019	History	Arts and Humanities	Pre-sessional	401
11.	The French revolution	ahlct020	History	Arts and Humanities	UG	17
12.	Introduction to	ahlct021	History	Arts and	UG3	399

	Historiography			Humanities		
13.	E.H. Carr	ahlct022	History	Arts and Humanities	UG3	213
14.	E.P. Thompson: poet of the past	ahlct023	History	Arts and Humanities	UG3	64
15.	Ranke	ahlct024	History	Arts and Humanities	UG3	536
16.	Marx: 18 Brumaire	ahlct025	History	Arts and Humanities	UG3	352
17.	Marx and Marxism	ahlct026	History	Arts and Humanities	UG3	461
18.	Weber and the 'Protestant Ethic'	ahlct027	History	Arts and Humanities	UG3	216
19.	The Annales: the early years	ahlct028	History	Arts and Humanities	UG3	751
20.	The Annales: Braudel and beyond	ahlct029	History	Arts and Humanities	UG3	618
21.	Contemporary Approaches to the History of Art 1: Iconography	ahlct030	History of Art	Arts and Humanities	UG	1,257
22.	Contemporary Approaches to the History of Art 2: Postcolonialism,	ahlct031	History of Art	Arts and Humanities	UG	1,016
23.	The Academic Landscape	ahlct032	History of Art	Arts and Humanities	UG	182
24.	Kant's categorical imperative	ahlct038	Philosophy	Arts and Humanities	UG	213
25.	Descartes: mind and body: meditation 6	ahlct039	Philosophy	Arts and Humanities	UG	185
26.	HIV and AIDS	lslct008	Biological Sciences	Life Science	UG	277
27.	Alien Ecology	lslct009	Mathematics	Life Science	unknown	700
28.	Introduction to the Laboratory	lslct010	Biological Sciences	Life Science	UG1	277
29.	The Science of Transplantation	lslct011	Biological Sciences	Life Science	UG3	971
30.	Inequalities in Health Care	lslct012	School of Health and Social Studies	Life Science	UG1/PG	505
31.	How Can Health Inequalities be Tackled?	lslct013	School of Health and Social Studies	Life Science	UG1/PG	510

32.	Policies and Initiatives to Tackle Health Inequalities	lslct014	School of Health and Social Studies	Life Science	UG1/PG	190
33.	Sources of Variation I	lslct015	Statistics	Life Science	UG/PG	700
34.	Sources of Variation II	lslct016	Statistics	Life Science	UG/PG	388
35.	Abdominal Aortic Aneurysms: Trial and Error	lslct017	Medicine	Life Science	UG/PG	190
36.	Hepatitis B Endemicity	lslct018	Biological Sciences	Life Science	UG2	266
37.	How to cope with a Research Ethics Committee	lslct019	Biological Sciences	Life Science	PG/Staff	308
38.	Evaluating Student Experiences of Community-Based Medicine Using the Nominal Group Technique	lslct020	Primary Health Care and General Practice	Life Science	Staff	988
39.	Teaching Health and Development: Can We Change Attitudes?	lslct021	Primary Health Care and General Practice	Life Science	Staff	294
40.	Medical Student Selection Procedure at the Warwick Medicine	lslct022	Medicine	Life Science	Staff	378
41.	Gathering and Responding to Student Feedback	lslct024	Medicine	Life Science	Staff	437
42.	Use of Portfolios in Medical Education	lslct025	Medicine	Life Science	Staff	481
43.	Introduction to Renal Function: The Concept of Clearance	lslct026	Medicine	Life Science	UG2/PG	110
44.	The Kidney and Calcium Homeostasis	lslct027	Medicine	Life Science	UG2/PG	153
45.	Kidney Stones	lslct028	Medicine	Life Science	UG2/PG	112
46.	Concentration and Dilution of Urine	lslct029	Medicine	Life Science	UG2/PG	210
47.	Structure and Functional	lslct030	Medicine	Life Science	PG	230

	Relationships in Proteins					
48.	WMS, Phase 2 and the LWMS Curriculum	lslct031	Medicine	Life Science	Staff	208
49.	Diabetic Nephropathy	lslct032	Medicine	Life Science	UG2/PG	381
50.	Acute Renal Failure	lslct033	Medicine	Life Science	UG2/PG	1,063
51.	Glomerulonephritis	lslct034	Medicine	Life Science	UG2/PG	380
52.	Viruses As Agents of Disease 1	lslct035	Biological Sciences	Life Science	UG1	370
53.	Viruses As Agents of Disease 2	lslct036	Biological Sciences	Life Science	UG1	193
54.	HIV Infection	lslct037	Biological Sciences	Life Science	UG3	118
55.	Introduction to DISC (Developing Interview Skills in the Consultation)	lslct038	Medicine	Life Science	UG1/PG	201
56.	Fundamentals of radiation chemistry	pslct005	Chemistry	Physical Science	UG3	121
57.	Mechanism of action of photo irradiated TiO2 in oxidising organic pollutants in water	pslct006	Chemistry	Physical Science	UG3	312
58.	Recursion	pslct010	Computer Science	Physical Science	UG	309
59.	Optimal Control	pslct015	Economics	Physical Science	unknown	695
60.	Economics 1	pslct016	Economics	Physical Science	UG	302
61.	An introduction to vibration	pslct022	Engineering	Physical Science	UG	72
62.	Tension structures	pslct023	Engineering	Physical Science	UG	518
63.	The Joy of Sets	pslct025	Mathematics	Physical Science	UG	457
64.	Modelling nature's non-linearity: evolutionary game theory	pslct026	Mathematics	Physical Science	UG	231
65.	Formal Logic	pslct033	Philosophy	Physical Science	UG	
66.	Artificial Life	pslct035	Psychology	Physical	UG	422

				Science		
67.	Significance tests	pslct036	Statistics	Physical Science	UG2	757
68.	Burnside's Theorem Foreplay	pslct037	Mathematics	Physical Science	UG3/4	76
69.	Log-rank test	pslct039	Statistics	Physical Science	UG3/PG	270
70.	Inflation targeting	sslct010	Economics	Social Science	UG	1,582
71.	Compensation awards in personal injury cases	sslct013	Law	Social Science	UG	216
72.	Silence as evidence	sslct014	Law	Social Science	PG	542
73.	Prostitution	sslct015	Law	Social Science	UG	280
74.	Adverse Possession	sslct016	Law	Social Science	UG	1,734
75.	Managing race	sslct022	Politics and International Studies	Social Science	UG	926
76.	Nozick's Libertarian Critique of Rawls	sslct023	Politics and International Studies	Social Science	UG	415
77.	EMU and EU	sslct024	Politics and International Studies	Social Science	Pre-sessional	1,140
78.	Decision making in the European Union	sslct025	Politics and International Studies	Social Science	UG	489
79.	Commissioning – contracts	sslct026	Postgraduate Medical Education	Social Science	staff	366
80.	Performance and decision making in groups	sslct029	Psychology	Social Science	UG	2,203
81.	The pluralisation of forms of production	sslct030	Sociology	Social Science	UG	659
82.	The labour movement and 'new' social movements	sslct031	Sociology	Social Science	UG	622
83.	Introduction to the international business environment:	sslct032	Business	Social Science	PG	3,444

	relationship between structure and strategy					
84.	Pricing	sslct033	Business	Social Science	UG	196
85.	International marketing relationships	sslct034	Business	Social Science	UG	36
86.	Formulation of Operations Strategy	sslct035	Manufacturing	Social Science	PG	664
87.	Dictionaries	sslct038	Centre for English Language Teacher Education	Social Science	Pre-sessional	1,529
88.	Research Methodology: Vocabulary	sslct039	Centre for English Language Teacher Education	Social Science	PG	175
89.	Collaborative Learning	sslct040	Centre for English Language Teacher Education	Social Science	PG	231

Appendix IV

Life Science lecture introduction LSLCT017

Function	Text
Introduce Oneself	i'm namex and i'm very pleased to be lecturing in this course
Refer to Visuals	and i saw some of the things on the board
Outline Scope	and i thought probably what i'd do is start with a single equation and this is the only equation you're going to see in this lecture
Refer to Visuals	and it's on the board there now
Check Comprehension	now what does that tell you does it look even vaguely familiar to anyone [laughter]
Check Comprehension Feedback	no i've probably got it wrong i thought it was something like the equation of relativity
Show Importance	and the real reason i put it up there is that Albert Einstein was one of the very famous people to have an abdominal aortic aneurysm
Announce Topic	and i'm going to talk to you about abdominal aortic aneurysms so a more clinical flavour and how we use trial error and statistics in a real health problem
Announcement	i've sorted myself out with how to use this but i don't know whether i've got any sort of pointer nf0280: yes there's a mouse nf0279: i use the mouse nf0280: yeah nf0279: er well that's great 'cause the screen's gone off so i er oh okay right

Appendix V

Arts and Humanities lecture introduction AHLCT012

Function	Text
Indicate Scope	lecture might be a rather grand title for what we'll do today this perhaps will be a few tips perhaps pitched somewhere between a pep talk and a little bit of the reading of the riot act
Show Importance	but it's just to give you a sense a kind of bit of fine tuning for how you might think about the work that you present for us to read for the degree pec-, particularly as opposed to what you might have been doing for A-level there are sort of significant shifts you see so it's no bad thing early on to start thinking about the way things might change
Refer to Handout	and the i will be talking with reference to this i may not actually quote it but afterwards you will be able to read this through and see the connections with what i've been talking about
Show Importance	now if you people were going off to study some other subjects around this institution perhaps in engineering or physics or somewhere someone might have the job of wising you up about safety rules if you were dealing with expensive and dangerous equipment but actually of course you are the people who are working with the most expensive and the most dangerous the most delicate piece of equipment of anyone in the university because you are the people who are working with language that was a very expensive product and it can do a great deal of harm and part of your job as students of English is to be aware of that to be aware of your own use of language and of course to be critically aware of other people's use of language and of course we read what has come down to us traditionally as some of the great texts of of literature English and European and and American partly of course for their intrinsic interest that that's the main thing but also because they are the most complex the most concentrated uses of the language and so your interest in the matter doesn't stop as it were at the text that we bound as literary from th-, those texts you were learning to think about language perhaps in a much broader sense
Announce Topic	now i will be concerned today to think about your own use of language when you write most of your degree of course will be concerned with your critical and appreciative entry into other people's use of language but there is a an important traffic between them so that's really what we want to think about a little bit today how you yourselves use language in an academic context

Appendix VI

Social Science lecture introduction SSLCT015

Function	Text
Announce Topic	nm1157: today's topic is the law relating to prostitution
Refer to Future Lecture	er which is also er to be the topic of our seminars next week as you will see er the focus next week is really on the issue of policy what should the law's policy be in relation to prostitution
Relate New to Given	er and by policy we mean of course what should the law be doing in order to deal with any problems if any are found relating to prostitution er in order to er alleviate such problems and make the world better which is what policy is all about er
Refer to Future Lecture	because we're going to be discussing policy in seminars er the lectures i'm going to give you are going to focus very much on the law er and i suppose i will be perhaps holding back from policy issues what this means of course is that you mustn't assume that all the answers to next week's seminar are to be found in today's lecture er today's lecture is going to give you some of the material for next week's seminar but you're going to have to go further er in the reading which we provide for you and indeed in your own thoughts right prostitution and the law
Indicate Scope	er the first question i suppose is what is the law trying to achieve er in relation to prostitution
Refer to Earlier Lecture	er if you remember we talked about the rationale of offences er in relation to other offences and er it's fairly easy to work out what the law is trying to achieve in relation to murder or rape or theft the objective is obvious what should the law try and achieve in relation to prostitution

Appendix VII

Physical Science Lecture Introduction PSLCT015

Function	Text
Recap Earlier Lecture	er so where we were last time is we had er written down a likelihood that we wanted to maximize and then we'd written down the first order condition so let's write remember the likelihood the likelihood went like er the Lagrangian sorry went like this that was the flow element of it and er there we had this extra stuff that came from the end conditions now we realized that this Lagrangian didn't contain terms in the X-prime term so this was a separable maximization and all we needed to do to maximize this lagra-, Lagrangian was to differentiate it at each time into T and set those derivatives equal to zero and if we did that what we got from in here was D-F- by-D-X plus lambda-D-G- by-D-X is equal to minus-lambda-prime at all times little-T okay and that's just differentiating this expression with respect to X so that it's maximizing this term in the integral at each time little-T with respect to X and the other condition we had was D-F-by-D-U plus lambda-D-G- by-D-U was equal to zero at all times little-T and that was again differentiating this point thing in the integral here with respect to U at all times little-T so we're maximizing this with respect to U now these two conditions have a special name they're called the Hamiltonian conditions and er the reason they're called the Hamiltonian conditions a-, are apart from being named after a man called Hamilton is that they er sta-, are basically derivatives of the function F plus lambda times G with respect to X here and with respect to U here so we think of the function H which is F plus lambda times G as the thing that's being differentiated on the left-hand side
Relate New to Given	now so these are like first order conditions if we wanted to maximize something we'd take these first order conditions and solve them but there's other things here that we also need to worry about the other things here that we need to worry about come from differentiating this Lagrangian at the terminal time you see X at time T appears here then it appears here so if we differentiate the Lagrangian with respect to X at time T we don't get an expression like this or an expression like this we get mu minus lambda at T
Refer to Handout	and that's actually written right at the bottom of of page two of your notes now

Recap Earlier Lecture	and this has got to equal zero now where did this bit of the Lagrangian come from this bit of the Lagrangian came from the terminal constraint by our state variable we had a ke-, terminal constraint which said that X at time T had to be greater than or equal to some number X-nought and this lambda at time T and this mu at time T are two Lagrange multipliers for X at time T mu is the Lagrange multiplier that applies this constraint lambda at T is the costate variable so this condition here gives you a link between the two
Announce Topic	so i think probably the best thing to do now is to use these conditions to solve a particular problem
Show Importance	so let's forget this stuff the stuff up there and use the first order conditions to solve a particular problem so you can see how they work in practice
Outline Scope	so what i'm going to do is i'm going to take this stuff and put it up there and then i'm going to solve the problem over here and you'll be able to see how they relate one to the other
Announcement	so first of all i've got to be able to rub the blackboard off excuse me right so let's get rid of that and get rid of that and we can get rid of that too we'll leave the rest up
Refer to Handout	now the example i give you is on page three of the notes
Announce Topic	and the example is one of a a consumer trying to maximize their lifetime's utility

Appendix VIII

Top 200 words of the Lecture Introduction Wordlist

N	Word	Freq.	%	Texts	%
1	THE	2,289	5.05	89	100.00
2	OF	1,495	3.30	88	98.88
3	ER	1,406	3.10	86	96.63
4	AND	1,329	2.93	88	98.88
5	TO	1,328	2.93	87	97.75
6	A	944	2.08	85	95.51
7	IN	901	1.99	86	96.63
8	THAT	818	1.81	86	96.63
9	YOU	784	1.73	84	94.38
10	I	695	1.53	81	91.01
11	IS	646	1.43	81	91.01
12	SO	442	0.98	82	92.13
13	IT	405	0.89	74	83.15
14	THIS	401	0.89	83	93.26
15	WE	380	0.84	68	76.40
16	ON	320	0.71	75	84.27
17	AT	319	0.70	67	75.28
18	ABOUT	314	0.69	75	84.27
19	BE	291	0.64	67	75.28
20	FOR	281	0.62	67	75.28
21	ARE	270	0.60	75	84.27
22	WHAT	270	0.60	73	82.02
23	HAVE	267	0.59	67	75.28
24	AS	266	0.59	69	77.53
25	#	252	0.56	73	82.02
26	WAS	251	0.55	59	66.29
27	BUT	244	0.54	65	73.03
28	WHICH	231	0.51	59	66.29
29	GOING	224	0.49	68	76.40
30	WITH	223	0.49	67	75.28
31	IF	214	0.47	66	74.16
32	ONE	198	0.44	60	67.42
33	IT'S	192	0.42	55	61.80
34	I'M	183	0.40	55	61.80
35	THERE	182	0.40	55	61.80
36	DO	177	0.39	62	69.66
37	OR	177	0.39	55	61.80
38	JUST	176	0.39	56	62.92
39	FROM	173	0.38	61	68.54
40	ALL	172	0.38	55	61.80
41	WILL	168	0.37	49	55.06

42	CAN	154	0.34	58	65.17
43	THEN	153	0.34	53	59.55
44	SOME	151	0.33	61	68.54
45	NOW	150	0.33	54	60.67
46	THEY	149	0.33	46	51.69
47	AN	147	0.32	52	58.43
48	KNOW	146	0.32	46	51.69
49	VERY	141	0.31	52	58.43
50	NAMEX	137	0.30	38	42.70
51	NOT	132	0.29	52	58.43
52	REALLY	128	0.28	36	40.45
53	SORT	128	0.28	36	40.45
54	PEOPLE	122	0.27	36	40.45
55	OKAY	121	0.27	49	55.06
56	BY	119	0.26	50	56.18
57	THINK	117	0.26	46	51.69
58	WE'RE	115	0.25	49	55.06
59	THAT'S	114	0.25	45	50.56
60	WELL	113	0.25	49	55.06
61	WHO	109	0.24	40	44.94
62	FIRST	108	0.24	46	51.69
63	MORE	108	0.24	40	44.94
64	BECAUSE	106	0.23	50	56.18
65	ACTUALLY	105	0.23	43	48.31
66	LECTURE	105	0.23	48	53.93
67	LIKE	105	0.23	41	46.07
68	YOUR	104	0.23	43	48.31
69	HE	103	0.23	22	24.72
70	HOW	103	0.23	43	48.31
71	GOT	100	0.22	41	46.07
72	OTHER	95	0.21	44	49.44
73	TWO	93	0.21	44	49.44
74	COURSE	91	0.20	35	39.33
75	LAUGHTER	91	0.20	22	24.72
76	TALK	89	0.20	47	52.81
77	HERE	88	0.19	36	40.45
78	SAY	87	0.19	35	39.33
79	BEEN	86	0.19	41	46.07
80	THOSE	85	0.19	38	42.70
81	DON'T	84	0.19	31	34.83
82	HAD	84	0.19	36	40.45
83	HAS	84	0.19	38	42.70
84	MY	84	0.19	32	35.96
85	RIGHT	84	0.19	39	43.82
86	THESE	84	0.19	36	40.45
87	UP	84	0.19	42	47.19

88	LOOK	83	0.18	35	39.33
89	TODAY	83	0.18	43	48.31
90	TIME	82	0.18	40	44.94
91	LAST	81	0.18	41	46.07
92	SEE	78	0.17	39	43.82
93	WANT	77	0.17	43	48.31
94	THEM	76	0.17	37	41.57
95	WERE	76	0.17	35	39.33
96	GET	75	0.17	36	40.45
97	OUT	74	0.16	38	42.70
98	WE'VE	74	0.16	30	33.71
99	WHEN	74	0.16	39	43.82
100	ALSO	71	0.16	30	33.71
101	ANY	71	0.16	33	37.08
102	GO	70	0.15	33	37.08
103	I'VE	69	0.15	37	41.57
104	START	68	0.15	39	43.82
105	WEEK	68	0.15	25	28.09
106	SHOULD	66	0.15	36	40.45
107	WOULD	64	0.14	25	28.09
108	COME	63	0.14	30	33.71
109	WAY	61	0.13	29	32.58
110	THERE'S	60	0.13	27	30.34
111	GOOD	59	0.13	32	35.96
112	TALKING	59	0.13	32	35.96
113	QUITE	58	0.13	25	28.09
114	THING	58	0.13	26	29.21
115	HIS	57	0.13	17	19.10
116	INTO	57	0.13	36	40.45
117	ME	57	0.13	25	28.09
118	THAN	57	0.13	30	33.71
119	THINGS	57	0.13	33	37.08
120	MOST	56	0.12	27	30.34
121	SOMETHING	55	0.12	32	35.96
122	DIFFERENT	53	0.12	27	30.34
123	LOOKING	53	0.12	32	35.96
124	THROUGH	53	0.12	26	29.21
125	GIVE	52	0.11	30	33.71
126	WHERE	52	0.11	34	38.20
127	I'LL	51	0.11	29	32.58
128	WE'LL	51	0.11	24	26.97
129	WORK	50	0.11	24	26.97
130	US	49	0.11	22	24.72
131	WHY	49	0.11	24	26.97
132	IDEA	48	0.11	23	25.84
133	MIGHT	48	0.11	31	34.83

134	MUCH	48	0.11	27	30.34
135	THREE	48	0.11	28	31.46
136	BIT	47	0.10	26	29.21
137	ONLY	47	0.10	29	32.58
138	SAID	47	0.10	22	24.72
139	WORDS	47	0.10	12	13.48
140	NEXT	46	0.10	23	25.84
141	NO	46	0.10	22	24.72
142	S	46	0.10	26	29.21
143	YEAH	46	0.10	17	19.10
144	YEAR	46	0.10	21	23.60
145	DICTIONARY	45	0.10	2	2.25
146	LOT	45	0.10	21	23.60
147	TERMS	45	0.10	21	23.60
148	COULD	44	0.10	28	31.46
149	BETWEEN	43	0.09	24	26.97
150	GROUP	43	0.09	11	12.36
151	THEIR	42	0.09	27	30.34
152	BEING	41	0.09	27	30.34
153	DOING	41	0.09	30	33.71
154	END	41	0.09	24	26.97
155	MEDICAL	41	0.09	16	17.98
156	RESEARCH	41	0.09	12	13.48
157	YOU'RE	41	0.09	23	25.84
158	AFTER	40	0.09	25	28.09
159	NEW	40	0.09	19	21.35
160	BACK	39	0.09	23	25.84
161	HISTORY	39	0.09	13	14.61
162	OUR	39	0.09	23	25.84
163	PUT	39	0.09	28	31.46
164	BETTER	38	0.08	15	16.85
165	LITTLE	38	0.08	24	26.97
166	MEAN	38	0.08	19	21.35
167	POLICY	38	0.08	5	5.62
168	TAKE	38	0.08	22	24.72
169	THEY'RE	38	0.08	20	22.47
170	TRY	37	0.08	18	20.22
171	FIVE	36	0.08	18	20.22
172	IMPORTANT	36	0.08	23	25.84
173	MANY	36	0.08	19	21.35
174	NEED	36	0.08	22	24.72
175	POINT	36	0.08	27	30.34
176	QUESTION	36	0.08	19	21.35
177	USE	36	0.08	21	23.60
178	ENGLISH	35	0.08	6	6.74
179	PROBABLY	35	0.08	24	26.97

180	TITLE	35	0.08	7	7.87
181	U	35	0.08	13	14.61
182	BEFORE	34	0.08	24	26.97
183	KIND	34	0.08	21	23.60
184	OFF	34	0.08	28	31.46
185	PART	34	0.08	23	25.84
186	PARTICULAR	34	0.08	25	28.09
187	T	34	0.08	13	14.61
188	C	33	0.07	17	19.10
189	MAKE	33	0.07	22	24.72
190	NINETEEN	33	0.07	18	20.22
191	YOU'VE	33	0.07	21	23.60
192	FOUR	32	0.07	14	15.73
193	MAY	32	0.07	20	22.47
194	P	32	0.07	13	14.61
195	RATHER	32	0.07	22	24.72
196	READ	32	0.07	14	15.73
197	WITHIN	32	0.07	15	16.85
198	CALLED	31	0.07	19	21.35
199	DID	31	0.07	18	20.22
200	FACT	31	0.07	21	23.60

Appendix IX

Example of lecture introduction listening jigsaw activity

Resources: Cut up strips of lecture introduction script according to sub-functions, cut up pieces of sub-function names, video recording of lecture introduction PSLCT015.

Pre-listening activity:

1. Tutor activates schemata by eliciting from students what they expect to hear in a lecture introduction. Pair up students if necessary, and lead whole class discussion. Write up what students expect to hear on the whiteboard.

2. In pairs, students told that they are going to watch and listen to an Economics lecture entitled 'Optimal Control'. Students are told the task is to order the pieces of lecture script in order.

3. Students are given 5 minutes quickly read the lecture.

Listening activity:

4. When students are ready, tutor plays video recording.

5. Students rearrange the pieces of script according to what they hear.

6. Replay video if necessary.

Post-listening activity:

7. Tutor leads feedback session on answers for the correct order of the lecture introduction sub-functions.

8. Tutor distributes sub-function categories and gives students 5 minutes to match text with the sub-function names.

9. Tutor leads feedback session on correct answers of sub-function names.

10. Tutor leads whole class discussion, referring to list generated by students of what they expect in a lecture from the beginning of the session. Include in discussion disciplinary and lecture size fact

The table below of lecture introduction and sub-function names to be cut up by tutor.

	Function	Text
1)	Recap Earlier Lecture	er so where we were last time is we had er written down a likelihood that we wanted to maximize and then we'd written down the first order condition so let's write remember the likelihood the likelihood went like er the Lagrangian sorry went like this that was the flow element of it and er there we had this extra stuff that came from the end conditions now we realized that this Lagrangian didn't contain terms in the X-prime term so this was a separable maximization and all we needed to do to maximize this lagra-, Lagrangian was to differentiate it at each time into T and set those derivatives equal to zero and if we did that what we got from in here was D-F- by-D-X plus lambda-D-G- by-D-X is equal to minus-lambda-prime at all times little-T okay and that's just differentiating this expression with respect to X so that it's maximizing this term in the integral at each time little-T with respect to X and the other condition we had was D-F-by-D-U plus lambda-D-G- by-D-U was equal to zero at all times little-T and that was again differentiating this point thing in the integral here with respect to U at all times little-T so we're maximizing this with respect to U now these two conditions have a special name they're called the Hamiltonian conditions and er the reason they're called the Hamiltonian conditions a-, are apart from being named after a man called Hamilton is that they er sta-, are basically derivatives of the function F plus lambda times G with respect to X here and with respect to U here so we think of the function H which is F plus lambda times G as the thing that's being

		differentiated on the left-hand side
2)	Relate New to Given	now so these are like first order conditions if we wanted to maximize something we'd take these first order conditions and solve them but there's other things here that we also need to worry about the other things here that we need to worry about come from differentiating this Lagrangian at the terminal time you see X at time T appears here then it appears here so if we differentiate the Lagrangian with respect to X at time T we don't get an expression like this or an expression like this we get mu minus lambda at T
3)	Refer to Handout	and that's actually written right at the bottom of of page two of your notes now
4)	Recap Earlier Lecture	and this has got to equal zero now where did this bit of the Lagrangian come from this bit of the Lagrangian came from the terminal constraint by our state variable we had a ke-, terminal constraint which said that X at time T had to be greater than or equal to some number X-nought and this lambda at time T and this mu at time T are two Lagrange multipliers for X at time T mu is the Lagrange multiplier that applies this constraint lambda at T is the costate variable so this condition here gives you a link between the two
5)	Announce Topic	so i think probably the best thing to do now is to use these conditions to solve a particular problem
6)	Show Importance	so let's forget this stuff the stuff up there and use the first order conditions to solve a particular problem so you can see how they work in practice
7)	Outline Scope	so what i'm going to do is i'm going to take this stuff and put it up there and then i'm going to solve the problem over here and you'll be able to see how they relate one to the other
8)	Announcement	so first of all i've got to be able to rub the blackboard off excuse me right so let's get rid of that and get rid of that and we can get rid of that too we'll leave the rest up
9)	Refer to Handout	now the example i give you is on page three of the notes
10)	Announce Topic	and the example is one of a a consumer trying to maximize their lifetime's utility